

Muslim

Environmentalisms

Religious and Social Foundations



ANNA M. GADE



THE UNIVERSITY
of
WISCONSIN
MADISON

Muslim Environmentalisms



MUSLIM ENVIRONMENTALISMS

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Cover image: This representation of a honey bee is original calligraphy by Thoufeek Zakriya, an artist from Kerala, India (<http://thoufeekzak.blogspot.com/>). It depicts two verses from the Qur'an's sixteenth chapter, Al-Nahl ("The Bee"). With meanings rendered into English, these verses read:

Al-Nahl 68-69:

68. And your Lord revealed to the bees: "Build homes in the mountains,
the trees and in what humans construct for you.
69. "Then eat from all the fruits and follow your Lord's smooth paths." From their
bellies comes out a syrup of different hues, wherein is a healing for humankind.
Surely, in that there is sign for people who reflect.

In memory of my teacher, Frank E. Reynolds



Faculty of
Social Sciences

Faith, Ecology, and Change: Anna M. Gade's Engagement with Muslim Environmentalism



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Parts of this research have been presented in many settings, back to initial work on Cambodia, religion, and development as early as 2004 at the National University of Singapore, University of Michigan, American Academy of Religion Annual Meeting, Victoria University of Wellington, New Zealand, and elsewhere, such as John Carroll University and the University of Colorado at Boulder. Much of the early part of that material was in an unpublished paper from 2006, "Cham Muslims of Cambodia: Religion and Development," now appearing in an altered form in print in chapters 2 and 6 for the first time. Early drafts of the introduction circulated at Harvard University Divinity School in 2014–2015.

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Sections of chapter 6 on religious enactments appear as a four-part online portal, “Landscapes of Prayer,” on the SSRC’s website of the NDSP Project, *Reverberations*; another modified excerpt found in chapter 6 is on website of CHE, *Edge Effects*, as “Islamic Environmental Ethics and ‘Praying for Forgiveness.’” Two articles appeared in *Worldviews: Global Religions, Culture and Ecology*, “Tradition and Sentiment in Indonesian Environmental Islam” (2012) and “Indonesian Islamic Law of the Environment” (2015); “Beyond ‘Hope’: Religion and Environmental Sentiment in the U.S. and Indonesia” is in John Corrigan’s *Feeling Religion* (Duke University Press, 2017); and “Smoke, Fire, and Rain; Islamic Environmental Ethics in the Time of Burning” is in *Piety, Polity, and Ethics in Southeast Asian Islam: Beautiful Behavior* (Bloomsbury, 2019), edited by Rob Rozehnal. About forty original videos directly related to this original research are available with subtitled translation in English at www.vimeo.com/hijau, and these are indicated throughout the chapters of the book as well.

The book was completed in 2018, a product of a person, a place, and a time. A lot has changed as I was writing it, and I expect a lot more changes coming up ahead. I know, looking back, there will be much I wish I could revise in this text or that I had thought to do differently. But for a first attempt in the field, what’s more for a very new field called environmental humanities, this is where it stands today.

ONE

History of Religions, Islam, and Environmental Humanities

VARIOUS PROPOSALS TO decolonize the humanities had already long been underway when environmental humanities announced its beginning, which has only been in recent years.¹ When afforded power to intervene intellectually, something beyond a merely superficial inclusion, perspectives from Islamic studies advance this new cluster of disciplines constructively. For example, this may happen by way of critique, such as by parochializing European norms on whose heritage and prestige the humanities still draw.² Muslim perspectives further contextualize colonial-era concepts like nature that are already becoming denaturalized across environmental humanities. Moreover, Islam decenters spoken and unspoken assumptions about the role of religion in humanistic understandings of whatever is said to be “the environment.” This book suggests that Muslim environmentalisms may shift the foundation of humanistic fields even further with respect to ultimate concerns, like environmental crisis.

To “Islamicize” knowledge in a secular field that is still under establishment, and one that is concurrently initiating its own internal postcolonial critique, represents a multilayered enterprise. Along one historical arc, for instance, there is growing genealogical recognition that Muslim sources represent autonomous systems of knowledge that laid the groundwork not only for European sciences but also for its humanities. Along another more contemporary arc, terms for “environment” that stem from the Euro- and Anglo-centric history of the environmental sciences and environmental

studies are absorbed, adopted, and adapted within Muslim contexts today. With respect to Islam, this process may simultaneously replicate and alter embedded structures of orientalism in new iterations. Along another trajectory still, Muslim environmentalism, if accepted academically as integral to environmental humanities, represents bold opportunities to re-theorize key questions at the frontier of the field, like the most pressing ethical and humanistic questions of environmental justice and anticipation of dire consequence that guide the cutting-edge of inquiry today. Merely starting to find a language to name these processes of conceptual convergence and contradiction across fields of study is a good beginning.

Academic discussions about relationality and responsibility are at the forefront of cross-disciplinary environmental humanities. Addressing enduring problems that include the very limits of a secular-humanistic ethical framework, these perspectives strive in some way to universalize planetary norms across an unprecedented degree of environmental problems. Leading theorists of English-language environmental humanities like Donna Haraway, Bruno Latour, Timothy Morton, Anna Tsing, and Slavoj Žižek all wonder how to comprehend and live with crisis on nearly an apocalyptic scale, as if the scope of this new environmental-ethical frontier alone has finally shattered the twentieth-century theory and practice of the modern. These scholars struggle with the apprehension of precarity—political, sentimental, existential—that no longer represents environmental problems on a scale of manageability, but rather on overwhelming magnitudes of crisis (late market capitalism, nuclear and/or climate disaster, survival and well-being of populations, mass species extinction, ocean and earth systems in collapse, and so forth). They grapple with processes that have accelerated and intensified beyond the moderns’—or any human’s—ability to control across connected fields, from philosophy to environmental resource management. Many seek just to come to terms, quite literally, with these conditions by theorizing labels like the *Anthropocene* (i.e., the geologic era in which humanity indelibly alters the planetary record), asking, when did it begin or what does it all mean?, with spin-offs like Donna Haraway’s “Capitalocene,” “Chthulucene,” and so forth, and Timothy Morton’s postmodern “ecological thought.”³

These perspectives would view the human condition of environmentalism against an existential horizon of relations at the limit point of annihilation, and like the very modern itself, such attitudes halt at the edge of the

abyss, with popular critical writings on shock and collapse like that of Naomi Klein and Naomi Oreskes.⁴ Some humanists look forward constructively. Bruno Latour, for example, joins Rosemary Radford Ruether and others in a decades-long embrace of the world-redemptive myth of Gaia, another metaphor originally meant for science that, like Anthropocene, now works overtime as a humanistic model.⁵ Anna Tsing, an anthropologist of Indonesia, has gone imaginatively constructivist with colleagues in her recent coedited volume about living in precarity along with the unseen presences of a “damaged planet,”⁶ while Donna Haraway still sees elevated interspecies possibility in adapting together as “kin” like bacteria or lichens. Fundamental teachings on eschatology (“last things”) seem as ethically relevant today as in the seventh century; so it is valid to generalize that Islamic commitments to the phenomenal world, so-called environmentalisms, would similarly address head-on the notion of responsible and *human* existence as that of being among other creatures in the face of the imminent potential for earth’s destruction.

Long-established areas of Muslim religious theory and practice present the human state to be responding to the test of accountability with respect to the inevitability of “two deaths” (Q. 40:11): both an individual’s life as well as worldly environmental disruption with scenarios of the last things. Precarity, kin and community, ethics of consequence apparent in the natural world, and anticipation of apocalypse and even what comes after are standard themes, which coalesce in religious and now in environmental humanistic frameworks as well. Furthermore, it is also safe to generalize that Muslim environmentalism, as with norms of accountable relations to and with creation, diverges from prevailing paradigms that define the theory and practice of environmental studies with respect to responses to crisis, which tends to cast environment as a system of “problems” to solve in reaction. Practical norms are embedded within a broader ethical register to the degree that Islam remains relevant. This perspective offers critical and constructive value to environmental humanities as a dimension of the study of the environment. With the methodology adopted here, this would require no more commitment to unverifiable faith claims than does a routine humanistic analysis in terms of post-Christian ideologies like that of the sublime, or a concept like transcendental nature.

Commitments here called Muslim environmentalisms do not derive from a monolithic Islam; instead they emerge through layering of the

material, the ethical, and the symbolic in religious, scientific, social, and experiential frames. Over decades, the disciplines of history of religions and Islamic studies have developed tools for recognizing such patterns in their respective methodologies. For example, the scholar's first step in both areas would be to adopt the fields' productive balance of "text and context." For this, more than just a citation of Qur'anic terms and teachings of *hadith* (accounts about the Prophet Muhammad) is sufficient.

Just as there are said to be many "Islams," over its course this book examines diverse Muslim landscapes of environmentalism with the discipline and rigor of the academic study of religion, both as flexibly anthropological as well as historical and textual-analytical. This builds conceptual and practical frameworks to view how variegated Muslim principles like justice, cause and effect (whether through jurisprudential or scientific paradigms), and community and experiential knowledge link this world and the world to come in religious and environmental thought and practice. These emergent patterns in turn are the same ones that are expected to structure how religious people would at least partially address real-world environmental change, especially within the plural and pluralistic social worlds of Muslim commitments.

To bring Islam and the approach of history of religions to bear on environmental humanities is new, just as scholars of Islam have for their part rarely considered "the environment" as an area of focus. The intersection of these fields to date is a scholarly zone that usually falls under a title like "Islam *and* the environment." With few exceptions, work in this area tends not to discuss living people or detailed particulars. Even regional treatments of Islam *and* the environment have barely touched the ground in their descriptions, except to narrate selected organizational histories. The implications of the lack of anthropological grounding for humanistic study of the environment are two, and together these point the way to some positive next steps that this study strives intentionally to take.

First, as in the field of "religion and ecology" overall, analysis in "Islam *and* the environment" typically bundles any and all issues about the "the environment," public health to wildlife ecology, together as an undifferentiated category or abstract formulation. This is not commensurate with actual conversations in interdisciplinary environmental studies, which are often precisely *about* the coordinated integration of specialized research areas. Thus, from climate change to population growth, pollution

to biodiversity, a same-sized moralized “environmental concern” tends to be prescribed as a solution to conditions that range from conservation biology to toxicology, energy policy to waste management, atmospheric science to urban farming. Second, for interpreting humanistic theory in terms of religious lives in the present, and to some degree even in the past, ethnographic perspectives would be guided by sound knowledge of how Muslims’ lifeworlds are (and are not) informed contextually by shared scripture and tradition.

The latter is a point that still needs to be made in the academic study of Islam, decades after Edward Said put forward the case definitively in *Orientalism*. In his landmark study, Said singles out Clifford Geertz, cultural anthropologist of Indonesia, as a model scholar because his work presumably corrects orientalist bias by virtue of its ethnographic enterprise.⁷ Others, however, have criticized Geertz for going too far in this regard and thereby representing yet another orientalist mode, that being the erasure of Islam entirely. According to some, this has meant in the case of Geertz an overall ignorance about the content of Islamic textual tradition altogether, Qur’an to Sufism, while still confidently explaining, and for Indonesia even explaining away, Islamic religious identities on the basis of the specialist’s authority of a cold war area expert.⁸

There is little in the way of historical ethnography of Muslims (as such) and the environment (as such) in American cultural anthropology, the field that Geertz helped to establish. Exceptions to this include some important feminist-oriented work such as that by Carol Delaney (which nevertheless does not consider “environment” per se in its analysis of symbol).⁹ Some recent explorations have been in South Asia, for example, *Jinnealogy* by Anand Vivek Taneja and articles by Naveeda Khan, studies that follow current academic trends such as an ontological interest (after popular work of Philippe Descola and others) and the deployment of the convention of the Anthropocene.¹⁰ Another kind of fieldwork approach in Anglophone settings presents evidence of faith-based environmental action, implicitly or explicitly casting an interfaith lens onto Muslim-minority settings. Besides introducing much-needed field data into shared academic conversations, as Said’s work called for decades ago, ethnographic material may yet shift colonial and Eurocentric humanistic paradigms in environmental studies. As present-day theory in environmental humanities increasingly slides toward phenomenological and ethical matters like ontologies, its

thematic focus directed by concerns long stemming from Europe's former regional Enlightenment may be altered by way of representing Muslims' religious, humanistic, and environmental lives, and now in their very own Islamic religious terms.

Mount Merapi Erupts

Standard approaches in the academic study of religion demonstrate how Islamic commitments with global comparative resonance may be recognized as environmental, as well as how this may be accomplished by weaving together an attention to text, tradition, and ethnographic context. An illustration follows from a field-based case, a study of natural disaster, which is a category of phenomena that in itself can register as functionally indicative of "the environment." With this illustration, intuitively sensible paradigms for understanding Islam, religion, and the environment emerge by following a disciplinary approach classically termed phenomenology in the history of religions.

From 2010–2014, I taught and researched intermittently in the area of an Indonesian volcano on Java that erupted catastrophically starting in late 2010.¹¹ The volcano is a few dozen kilometers from the original field site of Clifford Geertz in central Java. For conditions like these, there are many humanistic approaches for telling a story about religion and the environment. First, in this research context, "Javanese tradition" is a framework that dominates academic explanation (such as the early-career work on Indonesian politics by Benedict Anderson and writings by Geertz himself). This is especially the case with respect to religious culture tied to royal court centers of central Java, of which this case represents an instance. Second, and with a somewhat contrasting focus, notions of landscape and "place-based" narratives have long been a standard methodology in environmental history and humanistic geography for such a setting.¹² Both orientations would relate different kinds of accounts than does a third, the standard presentation of Islam called "religion and ecology"; this last perspective would most likely generate analysis based on preselected comparative key words and would tend primarily not to treat norms expressed through lived traditions (as does Geertz, for example, in his own study of ethico-legal systems in Indonesia as forms of "local knowledge").¹³

As I listened firsthand to environmental accounts in my own documentation of religious and social change on the slopes of Mount Merapi, I heard a kind of story, one that was inflected through Qur'anic religious viewpoints, and this had a religious dimension that exceeded the capacity of present humanistic frames for social, ethical, and symbolic analysis. In her book, *Who Can Compete Against the World?*, anthropologist Nicola Tannenbaum theorized the long-standing issue of relating "great tradition" (as in Pali texts) and local manifestation (as in Shan culture) with respect to the academic study of cultural systems in Buddhist Southeast Asia. For this, she developed a phrase, "power and protection," as a paradigm not just to represent her own field data in Buddhist Burma but also as overall theory for the anthropology of religion.¹⁴ Her approach represents long-accepted method for the history of religions that now can be applied in environmental humanities in original ways, while also pointing to what were actual themes that coalesced in field data concerning Muslim environmental power and protection elsewhere in Southeast Asia, and the world at large.

For decades before the volcano's eruption, the official spiritual guardian (*juru kunci*) of Mount Merapi, Mbah Maridjan, now deceased, had an appointment by the sultan of Jogjakarta to care for the mountain, as those in generations before him. Mbah Maridjan was famous for his daily silent walks up the slope to visit special sites, during which villagers would accompany him. On the day of the worst eruption, in October 2010, when the call came for evacuation, Mbah Maridjan did not leave his home in his village high on the mountain. The red cloud of pyroclastic flow swept down the slope at a temperature estimated at 600 degrees centigrade. The burned body of the *juru kunci* was later found in his home in the position of *salat* prayer prostration, covered in ash. In total, the eruption claimed 350 fatalities on the mountain, many of whom were villagers who had returned to care for their animals left behind during the evacuation. After the disaster, Mbah Maridjan became widely venerated. Many praised his dedication to his role as *juru kunci* and to the sacred mountain since he was seen to have made the ultimate sacrifice in this capacity. His once ash-buried house and adjacent grave became a small tourist center. The power of this figure in life, based on his role as the mountain's protector, thus continued even after death, and his own body became a symbol of community with respect to the landscape.



Figure 1.1 Path leading up in elevation to a structure for the *labuhan* ritual, above the evacuation line of the 2010 eruption, Mount Merapi, Indonesia. Photograph by the author.

As part of his charge, Mbah Maridjan had conducted an annual celebration called *labuhan*. This kind of Muslim enactment probably would not be mentioned in standard treatments of “Islam and the environment,” which tend to focus on textbook theology (like *tawhid*, God’s unity) or on normative ritual practice like the “five pillars of Islam.”¹⁵ During this multiday observance, offerings of gifts from the sultan, such as new clothes, are provided to the mountain’s guardian spirit. Following Clifford Geertz in his seminal article on the anthropology of religion, a text which provides a definition of “religion” that is widespread today, ritual transformation illuminates social and ethical principles of the kind that a humanistic approach (whether to the environment, Islam, or Indonesia) should be able to account for (Geertz in fact made a stronger claim: that ritual is where the “work” of religion occurs).¹⁶ The *labuhan* on Mount Merapi also changed after the eruption of the volcano and the passing of the mountain’s “gatekeeper” (*juru kunci*), Mbah Maridjan, especially with respect to evacuated communities. It remained after that, however, a powerful community ritual connected to the environment, albeit in an altered mode.

After a contested selection, the role of *juru kunci* was passed on to Mbah Maridjan’s son, Mas Asih Surakso Hargo (Pak Asih). Pak Asih continued the ritual of the *labuhan*, which had transitioned in public imagination out of the domain of religious rite and into the realm of performing the resiliency of culture and Javanese tradition after catastrophe. *Labuhan* is still conducted, and bigger than ever, but it now represents another kind of power of regeneration connected to disaster management. As I made the steep hike up the narrow mountain path at dawn with Pak Asih early one morning in Ramadan 2014, we passed through the marked evacuation boundaries still in effect to visit the sacred sites where the *labuhan* is observed, at least as far up as the path was cleared. He uttered silent devotions along the way, the meaning of which was obscured.

When I asked Pak Asih about what were unseen powers in the landscape with which he seemed to be communicating in a kind of prayer, the topic of conversation quickly turned to issues like water resource management. Similarly, a spoken Geertzian meaning of the ritual as directly regulating the natural world disappeared from public view as the celebration re-focused on the resilience of the public culture of displaced citizens, and even the landscape, rather than on relations with unseen guardian spirits.

Nevertheless, themes of power and protection were a constant, even through social, environmental, and ritual change.

Following a standard anthropological template of the twentieth century established by Geertz himself, this account could be cast as a representation of the disappearance of “Javanese religion” with the intensification of internationalized Islam (or, perhaps Weberian bureaucratic environmental rationalization). The former could be expressed along the lines of the canonical presentation of cultural stratification that Geertz used many times to analyze cultures of Muslim Java,¹⁷ and as still used; in a video interview, Pak Asih himself explained social change using the same tripartite labels that Geertz famously advanced (folk *abangan* and aristocratic *priyayi* Islam, and so forth).¹⁸ However, setting aside twentieth-century rubrics of sociology to explain religious change, and now to focus instead on the impact of the environmental conditions of the landscape itself—the eruption—the aggregate theme across the stories that I actually heard over the years around Mount Merapi did not have to do with representing systems as “Javanese,” “modernizing,” “syncretic,” or any other classification. In the aftermath of disaster, the explicit conversation was about relations of power and protection within worlds that are not under human control, like the “autonomous nature” about which Carolyn Merchant writes.¹⁹ In context, these have clearly spoken and acknowledged Qur’anic resonances.

My conversations with religious leaders about the eruption converged around themes of community “power and protection,” which invites the scholar to consider what would register as relevant Islamic commitments in humanistic frameworks. To hear the environmental relationships around the eruption on Mount Merapi expressed as “Muslim” requires not only listening to actual Muslims who really were there, such as the Islamic leaders who were at the frontlines of disaster relief,²⁰ but also to have advanced competence in textual traditions and their social and historical embeddedness. I have found over years of fieldwork in the region that fundamental religious frameworks with global extensions, such as those propagated by elementary religious schooling in the Qur’an (which features prominently key expressions like “power” and “protection,” as through the multivalent term *islam* itself), constituted and validated environmental experience much more than do terms for sociological processes like *orthodoxy*, *tradition*, or *reform*.

For example, the leader of the Islamic school at what was the evacuation line at the time of the same volcano's eruption related in a videotaped interview the significance of interfaith prayer practice at his *pesantren* (Islamic school) on the mountain slope, which was the gathering place for evacuees at the time of the eruption. K. H. Masrur Ahmad stated, "Everybody was just looking for same thing—security [*keselamatan*]." ²¹ He said this while he gave an extended description of prayer practices, prayer being the only action that could be undertaken by refugees after evacuation, besides waiting patiently. According to this story, a human-centered environmental principle, "security," was what mattered most when Mount Merapi erupted. A postcolonial environmental humanities would need to expand its analysis in terms of "local knowledge," as well as with respect to global Islamic traditions for such cases as these in which environmental commitments are expressed in a Muslim religious idiom.

It is at this juncture that philology and relevant expertise about religious tradition also makes a positive theoretical intervention to interpretive models. Although terms related to *keselamatan*, like "Islam" itself, also carry the connotation of the sense of "safety," *salamah* (i.e., the Arabic semantic root for the Malay/Indonesian word *keselamatan*) is not usually taken to be one of the key environmental terms of the Qur'an. (This despite the frequent appearance of many close variants in the text, including the commonplace word *salam* [peace, security, safety], as in the Muslim religious greeting "Peace be on you.") Furthermore, neither are any other Qur'anic terms that relate to power and protection invoked theoretically as standard environmental key words in treatments of "Islam and the environment," despite their widespread ritual use and function (e.g., many of the "ninety-nine names of God," or *al-asma' al-husna*, express such divine qualities). This analysis indicates that indeed they certainly could be, although certainly not in a totalizing way as the *only* Muslim environmental attitude.

There are of course many core concepts in Islamic religious tradition that convey notions of biosphere, creatures, and resources, not to mention truth, beauty, and justice, that constitute modern Muslim environmental religious commitments. Power and protection (as in Tannenbaum's explanatory framework) and a local and Qur'anically related idea of *keselamatan* (as in the ethnographic description given earlier) have resonance for the

present case, as do cutting-edge themes in environmental humanities such as “living with precarity.” These are concepts Muslims demonstrably use and experience meaningfully, and often with deep Qur’anic resonances, in Islamic religious settings. Since the Qur’anic tradition in text and practice does not come with root key words to be translated unambiguously as “environment” or “environmentalism,” these are also concepts that guide developing humanistic theory to make a grounded contribution to studying Islam, religion, and environment. For the humanistic discipline and enhanced community-focused and textually informed depth expected of the history of religions, this approach would divert an otherwise superficial application of post-Christian terms in religion and ethics that commonly circulate in the environmental humanities like *the sacred* or *stewardship*.

This is more than only a question of how to derive new labels for what is the environment since really it represents an old matter of developing original theory that is comparatively robust in the academic study of religion. Power and protection is not the sum of the environment in Islam, nor is “Javanese religion,” just as neither are English-language concepts like nature, biosphere, and human-world interaction that commonly define environment as the object of environmental studies totalizingly monolithic. Environmentalist concepts that are normally universalized to a full-blown planetary scale (like conservation and sustainability) in the course of their promotion would still not encompass the full meaning of the environment. Like the ideas power and protection, any and all of these are more aptly generalized as practical commitments, environmentalisms, than as theories of the environment. And the overlapping patchwork of this material is what is most salient to study and to analyze as “environmental” within any humanistic disciplinary framework.

Besides descriptive and critical approaches shared with cultural anthropology as well as basic knowledge of relevant text and tradition in Islamic studies, a robust humanistic framework for the present study of Muslim environmentalisms draws on the critical and constructive phenomenological tradition of the history of religions to develop interpretive categories. To show how environmental commitments intersect with religion and ethics, these reflect the context of actual and multifaceted Muslim lifeworlds. An academic approach to Islam such as that illustrated by the

Javanese case involves more than the designation of scriptural key words like “balance,” or a filtered selection of the Qur’an’s “environmental verses,” but rather what scholars like Amina Wadud and Farid Esack have called a “world-view” (here deriving from *Weltanschauung* in the philological tradition of Qur’anic studies) in order to develop academic frameworks for their study of contemporary commitments like feminism, interfaith pluralism, racial justice, and now environmentalism.

Unlike the broad and at times essentializing use of the term *worldview* in the field “religion and ecology” (for example, the way it is parsed with respect to religions of the world), within the academic field of Islamic studies Wadud and Esack conduct rigorous and systematic study of the “text and context” of contemporary Muslim theological approaches and activism such as solidarity for racial, gender, and social justice.²² Esack, for example, develops hermeneutics dialectically between firsthand experiences he documents of the struggle against apartheid in South Africa and scriptural interpretation. A similar method promises a nonconfessional vocabulary with which to express Qur’anic values and Muslim religious sources within real-world environmentalist ethical frameworks in this book, critically and even constructively, for nontheologians. This project should enhance environmental humanities overall, at the very least offering an invitation to rethink some of its own latent assumptions, such as that some ineffable quality that is called *the sacred* should orient the study of religion.

The approach here, unapologetically from the history of religions, draws on the structure of the field’s presentation of Islam to render a balanced treatment of Qur’an, law, philosophy, and religious thought, expressions in the sciences, art, and literature, as well as community and practice. These are guided by field-based examples from research carried out firsthand by the author in several countries. The book’s aim is to expand frameworks in both Islamic and environmental studies so that environmental notions, such as those of cause and consequence, can be acknowledged humanistically to matter in the way that global Muslims in fact say that they do. This could mean at times reproducing and at other times disrupting, possibly even upsetting, some of the more popular assumptions of today’s environmental humanities, including a present operating consensus on the significance of the idea of the Anthropocene.

Muslim Environmentalisms

“Muslim environmentalism” is the named approach preferred here to a standard subfield of Islamic and religious studies called *Islam and the environment*. The latter typically produces an essentialized conception of Islam according to a process of key word translation indicating what is “environment.” This characterizes contemporary “Islam and [x]” approaches overall (hence the italics, as in “Islam and —” democracy, women, human rights, and so forth). “Islam and the environment” typically relabels and reapplies normative and secular notions like the European sublime and so on. This leads to the propagation of non-Islamic idioms that Muslim messages are either rooted in or react to. To the degree that this is a mode intentionally produced and reproduced in and for Islamic systems, this does represent a primary and highly productive mode of Muslim environmentalism—yet its genealogy should nevertheless not be critically overlooked. This is because *Islam and the environment* as academic study does tend to obscure its own circulation and functioning as an ideological structure. Along with that comes another result, a general lack of regard for much of what could be the original contribution of Islam to global environmental humanities with respect to theory, practice, and a commitment to genuine pluralism.

For now, discussion remains methodological, not substantive. In attempting to portray an environmentalism of Islam for an audience comprised within the new discipline of environmental humanities, not all being familiar with approaches outside narrow fields such as the study of the decades of United States or Australian environmental history, sociology, or philosophy, or ecocriticism of the English-language corpus of Anglophone literature (also frequently circumscribed by nation-state or just a short time span like that of a generation), much could get lost in translation. Added to this is the lingering tendency with respect to Islam (*and* Qur’an, politics, women, war, etc.) to exert expertise as a form of authority that rings in a pitch of a bygone era that displays confident detachment from knowledge of Muslims’ own applied terms. As in the case of Geertz, this may even risk the full erasure of the Islamic nature of Muslims’ religion, even as it is directly in evidence. This dismissal can occur by way of being labeled “syncretic” or otherwise inauthentic along the lines of an “oriental/occidental” assessment (such as by being “Westernized,” having

inadequate presence alongside Muslims deemed more “Islamic,” such as those living in the Middle East, and so forth).²³

We in the field of Islamic studies have learned that to render Islam in an intelligible register for more general audiences, the main challenge no longer falls on Islam to explain itself, at least no longer to those who would liberally exercise their privilege of unknowing.²⁴ Rather, the intellectual task is to find commensurability within a humanistic project of translation, itself an implicit form of comparison, that reflects back on the differential power structures of representation in the first place.²⁵ A subject area like “stories told on Mount Merapi” or Islamic environmental law or Muslim alchemy, furthermore, presents a more workable scale for a project studying Muslim environmentalism than does a possibly more pedantic or distorted reflection on abstract key words such as *stewardship*. One benefit of this for humanities as a legacy of European tradition is to break down old resistances to new information, as, for example, through an invitation to open and understand words that religious Muslims actually read in the Qur’an.

The approach taken in this book therefore casts the comparative study of environmentalisms to be methodologically preferable to alternatives in the academic study of religion and ethics. Coherence for this project comes from accepted approaches in Islamic studies and religious studies (history of religions). Two rationales for this are, first, that it ethicizes humanistic study from the start in terms of commitments (i.e., toward environment) and, second, it compels clarity about what conditions or phenomena are taken to be this very object of human concern, the environment, whether present or future, seen or unseen, symbolic or manifest. This would represent an analytic step even beyond casting environment as human-world relations, a current prevailing approach in environmental humanities intended to modify formerly objectivist constructions like the biosphere. Right from the start, environmentalism has norms and values, ethics and intentionality built in to the suffix *ism*. Across differing contexts (whether generalized in the aggregate, inferred from global patterns, or shown in contrast or even contradiction), these commitments will always convey “environment” situationally in a nontrivial sense.

In her groundbreaking volume of 1993, *Environmentalism: The View from Anthropology*, Kay Milton reports that she and her colleagues wrestled with related methodological issues, which had been discussed in her field since

the 1970s. Milton writes in her introduction that debates in cultural anthropology in the 1980s and 1990s, such as those relating to feminism and Marxism, had “polarized opinion between an active commitment to social reform and a detached observation of social processes.”²⁶ This led her group of authors to the same conclusion represented by the method here, and in the case of Milton’s group this was to theorize environmentalism instead of an “anthropology of the environment.”

Within that scholarly context, Milton defines environmentalism as a social commitment. Writing for audiences in the social sciences, she offers a formulation that is strongly ethical from the outset: “environmentalism is essentially, though not uniquely, a quest for a viable future, pursued through the implementation of culturally defined responsibilities.” In the book’s introduction, Milton further elaborates on this with a secondary definition of “environment” (as “natural phenomena”), which follows as a corollary to the primary definition, that is, forms of commitment comprise environmentalism. She writes: “The general nature of these responsibilities distinguishes environmentalism from other such quests; they stem from recognition that ‘the environment’—loosely identified as the complex of natural phenomena with which we share the universe and on which we depend—is affected by human activity, and that securing a viable future depends on such activity being controlled in some way.”²⁷

Moving ahead a quarter century, and now in the inter- and intradisciplinary setting of environmental studies, including disciplines ranging from poetry to political ecology to earth sciences, Milton’s approach to environmentalism explicitly captures an ethical basis that is as pervasive as it is implicit. It is the field’s usual default in articulating the mission of its integrated, “problem-solving” mode, and these ethical commitments are precisely what sets environmental studies apart from more limited environmental sciences. Furthermore, “future-directedness” is now cast with respect to ultimate scenarios of crisis in environmental humanities; thus “social commitments” must also now embrace a wide range of empirically based relations that are seen and symbolic, certain and unknown, human and nonhuman, and in relation to radical existential outcomes.

From the perspective of today’s comprehensively interdisciplinary environmental studies as encompassing humanities, social sciences, and physical and biological sciences, Milton’s approach (i.e., to study “environmentalism” as primary and secondarily to allow such intentionality to

delineate what is contingently construed as the environment) is a disruptive and highly relevant intervention. It bridges an institutional division of labor across fields of environmental studies for which legitimacy and prestige often derive from muscular environmental sciences, but by which humanistic and moral ideals implicitly distinguish the field's unique definition. Social-scientific fields like sociology have largely absorbed the structural tension caused by the fact that universities have their environmental studies rooted in natural and biological sciences, yet "problems" are value determined, such as through notions of inequality and environmental justice.

However, a generalized Marxian attitude is no longer sufficient to carry the ethical load of emerging questions in environmental humanities, including both value pluralism and the potential of interspecies annihilation to oblivion. Emerging critical and constructive definitions in the new area of environmental humanities cast the environment away from reified notions like "nature" or "science" in order to present it as systems of interaction that highlight a moral order, increasingly measured against ultimate horizons. What scope of phenomena correspond to the environment therefore remains a formally and intentionally ambiguous idea, even for broader environmental studies. As is often the case in fields of "studies," the working definition is structured as a comfortable tautology: the environment is the object of environmental studies or environmental science.

This pragmatic constitution has proven to be both stable and productive, but it requires caution in exercising much theoretical ambition beyond this. Such a weak theorization as that in effect today makes any translation of what is meant by *environment*, to or from Muslim systems (and, above that, any positive identification of new theory that might result from such an exercise), appear even more arbitrary than what would otherwise sensibly be expected in the academic study of Islam. This is also the juncture at which Islamic systems reflect back into humanistic study their own unnecessarily parochial approaches, even as they may be as aspirationally confident to make universal claims about humanity's ethical response as a whole to combined planetary futures. Today's attempts to relate the secular concept environment to religious systems and indigenous lifeways reveal how it operates as an innately moralized concept, including in the registers of environmental studies (with environmental sciences operating within it).

Construction and critique make it increasingly apparent how much work religion and ethics are expected to do in addressing environmental issues that are assumed somehow to be moral problems at their base.

To cast environmental study in terms of a human “quest for a viable future,” pursued through intentional “responsibility” (following the words of Milton), shifts the theoretical grounding onto the imaginal and ethical apprehension of processes with respect to that which is not fully known (namely, these very futures). In terms of ultimate limits and ends, Islamic approaches allow the conditions of crisis no longer to be a halting problem, but instead to represent a reasonable point for reflection back into the ethical present. Muslim material leads current conversation in environmental humanities to consider the relations of human and nonhuman “creatures,” for example, as presented in Islamic theological, ethical and legal, scientific, as well as pious and aesthetic dimensions. The religious and scientific heritage of Muslims’ commitment points to how the environment is simultaneously an ethical and empirical subject overall. Islamic traditions of environmental commitment that bridge social, symbolic and ethical systems also intersect with cosmology, natural science, jurisprudence, and more, opening environmental studies, and environmental humanities within it, to a disciplined conversation about human apprehension of the unseen and unknown.

Throughout the aughts, phrases like “Muslim environmentalism” and “Islamic environmentalism” were already being widely used in the academic study of religion. These nevertheless took the meaning of the term *environmentalism* for granted, such as in the title of Richard Foltz’s volume, *Environmentalism in the Muslim World*. A landmark work like Foltz’s does not consider with precision the topic of environmentalism (it is used in the conventional sense of activism with respect to “problems” or “issues”). However, Foltz does challenge previous paradigms for “Islam and the environment” with normative questions such as, “Is there an Islamic environmentalism?” (In hindsight, the stakes of the question would now seem to be, how do Muslims belong in environmental humanities?) Foltz’s critical writings build on that of Mawil Izzi Dien and others to explore the relationship of “theory” (mostly Qur’an) to “practice” (such as official environmental initiatives in Iran), a theme long familiar in religious studies.²⁸

The term *Islamic environmentalism* also appears in the title of the book-length study by Tarik M. Quadir, *Traditional Islamic Environmentalism*. Through its presentation of modern critique, classical Islamic intellectual traditions (“traditional Islam”), and the representational figures Seyyed Hossein Nasr (as “Muslim environmentalist”) along with the philosopher from Iran known as Mulla Sadra (1571–1640), Quadir’s book brings together multifaceted strains in an Islamic idiom. He nevertheless does not, however, theorize what this could mean for categories like “environment” and “environmentalism,” nor does the book critically engage the colonial heritage of non-Muslim views such as European romantic attitudes about “nature.”

This book presents a partial intellectual and historical genealogy of Muslims’ approaches to the environment. It holds that the subject, “environment,” is shaped by lived and contextual “environmentalisms” of the past, present, and future, which are examined with the rigor of the standpoint of the history of religions, a field that encompasses comparative religious ethics (such as work of Charles Hallisey on Southern Asian Buddhism). Material is organized much the same as in a survey presentation of Islam for a course in the academic study of religion, such as one I have been teaching for over twenty years. This approach casts environmentalism to be a committed viewpoint about the environment, which may be variously expressed, such as through “safety,” a life-supporting habitation, all of God’s “creation” (*makhluq*), the conventional scientific notion of the biosphere or a related ethical expression of that which supports life, or the Qur’anicallly conventional notion of the landscapes to come in the *akhirah* (afterlife). The relationships of environment and environmentalism should be seen as a productive dialectic and, just like interactions of local and global systems, likewise form the ethical foundations that emerge as key discoveries of the book. It is acceptable to have a multivalent reference point for “environment,” much as we do when studying “religion” for Islam itself. This is broader than the usual definition and use of the term *environmentalism*, which typically identifies a more limited range of particular commitments such as sustainability and conservation. To probe what lies beneath these labels is nevertheless the direction that environmental humanities sets as its course as well, especially in its heightened philosophical and ethical key, now emerging across conversations and disciplines.²⁹

Critique, Construction, and Roles of Religion in Environmental Studies

Muslim environmentalisms intervene in both constructive and critical modes with respect to dominant expectations in environmental humanities, for example, as “nature thinking” or environment as problem. Arguments in this book, *Muslim Environmentalisms*, put in relief post-Christian assumptions that are inherent in ethical orientations across environmental humanities. This relates to another major claim of this book, which is that to register the environment by way of commitments called “environmentalism” (as Milton has done) renders a view of how *both* the descriptive study of sciences of earth, ocean, plants, and animals, on the one hand, *and* critical and creative exploration of their human explanations and expressions, on the other, rest on undeniably and inescapably ethical concepts across the subdisciplines of environmental studies.

Recent work of Lisa Sideris highlights the ethical narrative of science and environment in Euro-American systems, pointing out a kind of fragmentation between them that a mythic production (as in the sense of Paul Ricoeur, for example, or in the sense of Mircea Eliade’s “true stories”) functions to breach.³⁰ Bruno Latour, when lecturing on the actual myth of Gaia, points out a related “disconnect” and fragmentation of scientific and ethical scales that may only be reconciled precisely *through* reconnection.³¹ As indicated by these scholars, a reasonable if not coherent ethical framework is often what secular “environmentalisms” have sought by way of “spiritual-not-religious” forms of post-Christianity, including modes of romantic appreciation and even appropriation. One example of this is the continued effort to extend Aldo Leopold’s “land ethic” for environmental management (love for community extended to land) from the local scale of a weekend retreat for private family recreation outside Madison, Wisconsin (headquartered in the former chicken coop still fondly known as “the shack”), to the entire human race.³²

This opens up broader opportunities for critique in environmental humanities by way of Muslim environmentalism, that is, specifically to go beyond representational inclusion of diverse “others” in the validation of Euro-American frameworks. To assert varieties of Muslim environmentalism as a worldwide, if not global, “planetary ethic” challenges current paradigms

in environmental humanities, either particularizing themselves as post-Christian or more explicitly justifying their universalizing claims, while now also taking colonial and colonizing histories fully into account. Before undertaking a humanistic investigation of Muslim environmentalism, a charge is thus initially sent back onto Anglophone systems to render a fuller picture of their own genealogy prior to absorbing more discourse about Islam. This project could start by incorporating a robust account of Islam itself as an integral aspect within European intellectual heritage long before its period of expansionist imperialism began. Intellectually, however, this requires more than to have Muslim systems and European ones mutually acknowledged for their intertwined and fully global histories (such as with hegemonies of power and domination in the modern period). It invites environmental humanities to discipline categories that have long been too casually universalized. This work is already underway, though not yet achieving a postcolonial awakening, with the field's ongoing deconstruction of the idea of nature.³³

Environmentalism and the environment as such are relatively new concepts of the last half-century, possibly as much as two, as indicated by Andrea Wulf's book on the "inventor" of ecology, Alexander von Humboldt.³⁴ In his well-known survey, *An Environmental History of the Twentieth-Century World*, J. R. McNeill confirms this attitude, writing, "In contrast to the big ideas of the twentieth century, explicitly environmental thought mattered little before 1970."³⁵ Of course, "the environment" (as "nature") has had clear antecedents in Euro-American tradition before this, such as the celebrated nature writing of figures like Henry David Thoreau and John Muir, which mixed philosophy with conservation values and activism, now firmly established in the American national humanistic canon. The masterful overview by Catherine Albanese, *Nature Religion in America*, documents this process; Carolyn Merchant's feminist critique of European intellectual history, *Death of Nature*, ventures somewhat more widely outside the borders of the United States to Europe, and back to the medieval period.³⁶ Other scholars in the field of religion and ecology bypass Muslim transmission to leap straight back over a millennium to the period of classical Greece when telling a Eurocentric story of the idea of nature as a "Journey of the Universe."³⁷

The religious genealogy of dominant American notions of environment is the subject of multiple recent studies. These evidence the degree to

which Christian institutions' religious history intersects with environmental history in the U.S., connections otherwise relatively downplayed by post-Christian secular attitudes within environmental study in the latter twentieth century. These scholars, for example, document historical-social networks of connected Protestant denominations like Presbyterians and Congregationalists in emerging areas like land management as native sovereignty was eliminated.³⁸ New England Unitarian Universalism, represented by Ralph Waldo Emerson and Henry David Thoreau, is another key node in these networks, and the Second Great Awakening revival boosts their respective highly influential works on nature (Emerson's "Nature" and Thoreau's *Walden*). Wulf's biography of Alexander von Humboldt shows the degree to which the reception of the European naturalist tradition in the U.S. was connected to cosmological tendencies; one of his most influential works was *The Kosmos*, read by John Muir and others.³⁹ Religious and naturalist aspects also come together in a figure like Muir himself, whose Anglican roots are exposed by the tropes and metaphors if not the ethos of his writings (with abundant references to hymnody recalled from Wisconsin boyhood, for example). Within and apart from American ideologies of environmentalism like "wilderness," transnational environmental humanities remains bound to religion, from abundant cryptotheologies of "the sacred" and a reliance on the Kantian sublime.⁴⁰

The history of the academic fields, environmental studies and religious studies, are also intertwined, ideationally and structurally. Both share in nineteenth-century romantic and colonial histories, such as with valorization of authentic "experience" (as in both "nature" or "religious experience," sometimes the same thing as with the confessional expression "spiritual-not-religious"). Academic environmental studies still continues this long-standing identification when it holds up experience of the outdoors (in the form of recreation and/or field research) as authentic environmental practice. Both fields tend also to carry forward a liberal and individualistic understanding of sincerity, affect, and consumption, all with ethical underpinnings, into the secular present. These Enlightenment registers of moral sentiment (as in the sense of David Hume, John Locke, and Adam Smith) circulate as a sort of virtue ethics in evaluating "sustainable" personal lifestyle choices or promoting conscience as environmental awareness and concern. Finally, the dominant theme of alienation, the anomie of modernity, ambivalence over modernizing progress and

technology, and related anxiety over the boundaries of the human, is another feature that both disciplines share as part of romantic heritage.

Institutionally, both fields, religious studies and environmental studies, were birthed as academic departments in U.S. research universities as part of a similar global impetus of the 1970s, and each with subtle or not-so-subtle ethical agendas: environmental studies providing training in policy and sciences for holistic “problem-solving,” while religious studies advanced pluralistic human “understanding” proceeding from a missionary college and seminary past. Just as religious studies grapples with complementary and at times encroaching disciplinary investments in social sciences like anthropology, sociology, and history with respect to the depth of its own humanistic perspective, environmental studies having its own roots in environmental sciences may foster a parallel complex of tensions. The inherited and enduring positivism of the latter propagates a disjointed relationship to the explicit or philosophical ethics which environmental studies otherwise would rely upon in order to articulate its autonomous orientation. Disciplinarily, many academic departments in environmental studies today will still be limited to physical, biological, and “ecological” science, while nevertheless still defining *environment* in terms of some sort of vaguely ethicized “human-world interaction.” Humanistic rationalization in environmental studies commonly appears as modalities of the “solutions” to problems that still would only be recognized through exercising a moral capacity (as with “justice” in a Marxian mode).

Present-day environmental humanities has been slow to interrogate how its dominant notion of interactive environment extends from the idea that there is a “problem,” human caused, that degrades the biosphere. Meanwhile, environmental ethics looks to “hard science” for legitimacy, inside and outside of the cosmological tradition, and as has been lucidly explained by Sideris in her work on marine biologist Rachel Carson’s “wonder” and related topics.⁴¹ Carson further signals the shift to the moralization of science in terms of “crisis” in the American tradition by cultivating the signature moral sentiment of environmentalism, *concern*. The American publication of Carson’s 1962 best seller, *Silent Spring*, is usually taken to be the watershed moment for the beginning of a global “environmentalist” movement worldwide. The book’s problem and solution are framed as science, but the allegorical fable that opens *Silent Spring* shows

this knowledge is the heart of the moralized, undetectably deadly landscape, whose unseen poison is spread by “the people themselves” as if by an “evil spell.”⁴²

Narratives of moral problem and crisis at the heart of modern environmentalisms are more explicitly religious in the half-century-old tradition of the famous article by historian of science Lynn White Jr., “The Historical Roots of Our Ecologic Crisis” (1967). This remains the most reprinted article of all time from the journal *Science*, and it is cited in practically every treatment of “religion and ecology” to this day.⁴³ In White’s essay the fundamental problem is an ethical one (whereas the solution is religious), casting a story of European technical and intellectual history as one of the global environment as well. The article mostly considers agricultural change in medieval Europe, but it also includes an inventive critique of the anthropocentrism of Christian religious teachings. White alleged that a complete worldview, based on reading the first pages of the book of Genesis in the Bible (i.e., Genesis 1:28), led Europeans to believe that the resources of the earth were bestowed on humanity to exploit, and so they did, leading eventually to environmental crisis. Religion is not just a cause but then also a solution to environmental challenge in White’s analysis. A lasting legacy of White’s article is the continual pursuit of intellectual and spiritual resources (such as the life and writings of Saint Francis of the Roman Catholic tradition),⁴⁴ which may be skimmed from global religious traditions, one’s own or another’s, to provide uplifting or affective inspiration. The universalization of European and Christian norms for all humanity is a colonial device discussed elsewhere in this book with respect to direct impacts on representations of Islam.

A structure of problems and solutions with ethical underpinnings characterizes the North American idea of “environment” in its white-settler traditions across scientific, social-scientific, and humanistic modes. This to the degree that “the environment” itself is typically constituted as signaling some form of problem; conversely, problems can denote environment in and of themselves. In humanistic writings, a list of problems that point to overwhelming accumulated effects can be all that is needed to indicate rhetorically that the subject matter is “environmental” to begin with. For example, opening the work that provides a definitive intellectual critique of a nature/culture divide, Bruno Latour has ecological complexity represent a crisis as well as his critical theme. *We Have Never Been Modern* begins

with paragraphs to persuade the reader that an existential problem arises daily when perusing the intertwined and “strange imbroglios” in the front section of the morning paper, presenting these mostly as environmental issues: ozone depletion in the atmosphere, disease and global population health, technological impacts on life like control of computer microchips and reproduction from frozen embryos, forest burning and species extinction, tracking wildlife (whale) migration, a toxic slag heap in France, the circulation and sustainability of big television screens, etc. Adopting a rhetorical style of moral metaphor that extends back to Marx in the tradition of European critique (such as the section in *Capital* on commodity fetishism as “mystical”), Latour indicates moral profundity with religious reference, “If reading the daily paper is modern man’s form of prayer, then it is a very strange man indeed who is doing the praying today while reading about these mixed-up affairs.”⁴⁵

That the scale, intensity, and acceleration of crisis has surpassed the limits of apprehension is a fundamental issue of the environmental humanities, often expressed in terms of the Anthropocene, but ineffability and in fact incomparability were integral before that to post-Holocaust studies and “living with the bomb.” Theory now struggles with the ironies of anthropocentrism from an environmental point of view, such as how human-centrism in terms of agency relates to humans’ interspecies significance, ontologically speaking. That environmental problems are beyond the scale of humanistic apprehensions is nowhere more telling than in the calmly geological tables drawing on Eugene Stoermer and Paul Crutzen’s original proposition of the Anthropocene, which affirm to us that our age is merely one crisis among many in “deep time.”⁴⁶ Elizabeth Kolbert ends her best-selling book, *The Sixth Extinction*, with a reflection on an exhibit in the Museum of Natural History in New York City, explaining how visitors’ bodies were directed as if lined up in the targeted location of the next annihilation of species in earth history. Her book’s conclusion leaves open the question whether this experience is one that is informative, even reassuring, in that we are not alone in facing extinction, or emotionally terrifying.⁴⁷ The current academic conversation in environmental humanities hangs here as well.

As the humanistic problem scales up to scenarios like annihilation, the environmental solution likewise extends in scale to religious questions of ultimate concern. Both “environmentalism” and “environment” become

fully moralized ideas in this register. Environmental moralization has already long been the case with the romanticized view of nature, and since the start of social movements for environmental justice, and now it escalates in iterations of crisis that would require an existential or religious awareness to apprehend, a point on which secular humanists seem to agree increasingly. Environmental humanities, for example, expresses these issues more systemically than ever by way of the universal questions it poses about human conditions on the edge of purported planetary collapse. One contribution of this study is to model how Islamic humanities may grasp conceptually the environmentally unseen and indeterminate, as with the issue of climate disaster, in a coherent ethical register. Not a single metaphor from a recent scientific publication (Gaia from James Lovelock's earth science, the Anthropocene from a bulletin in geology news), this comes through a range of humanistic fields of Islamic studies including, science, art, law, and politics. Relevant to present ethical concerns too in environmental humanities, the apocalyptic worldview of the Qur'an itself extends horizons up to and beyond "crisis," although this point is surprisingly absent from standard treatments of "Islam and environment" and religion and ecology overall.⁴⁸

Based in Qur'an and almost fifteen hundred years of tradition and global experience, Muslim environmentalism disrupts the core idea of crisis in the American environmental heritage stemming from the writings of Carson and others. In this alone, Muslim environmentalism has value not just as critique of established environmental humanities but for its future construction as well. Additionally, it brings together ethical and empirical conceptions of environment, two areas that present-day environmental studies has failed adequately to resolve, at least according to an analysis like that of Sideris. Finally, Muslim worldviews happen, by virtue of a unique history, to have been the conduit that first conveyed the intellectual and empirical principles that became cornerstones of the secularized European Enlightenment. This contributed to the imperial enterprise that was trained back on Muslim societies within generations, along with ensuing colonial structures of modernity and eventually the category of "the environment" itself.⁴⁹

To study global Islamic environmentalism means to go even beyond the recognition of the social construction of key ideas like ecology and nature in order to address serious postcolonial issues of commensurate

scientific and ethical scales. Islamic conceptions do diverge from the Eurocentric and U.S.-focused heritage of environmental humanities. This also comes along with convergences on Anglocentric notions, since these circulate as the powerful ideologies that are reified and projected onto Islam, to which Muslim environmentalists sincerely relate in their essential and hybrid forms. Finally, it is also a necessary admission that these persistent patterns may erase Muslim commitment when globalizing or universalizing such dominant postcolonial paradigms, whether environmental or ethical. The correction to this means now parochializing projected moral sentiments in response. It also calls for inverting the colonial process of absorbing “others” into intellectual paradigms like genealogies of North American intellectual and environmental experience. Historicizing a triumphalist diversity is not a new challenge, however; in religious studies, such a program was already clearly laid out by the critique made by Tomoko Masuzawa in her study of 2005. *The Invention of World Religions* correlated decisively Christian supremacies within medieval European discussions of the dilemma of the very existence of varieties of Christian religion, along with the fabrication of “Judeo-Christianity” and then “Abrahamic faiths,” and eventually comparative “religious traditions” or “world religions.”⁵⁰

Critique, long a part of Islamic studies since Said’s *Orientalism*, has now begun in environmental humanities as well. For example, indigenous frameworks attenuate core nationalist narratives of U.S. environmental history (“conservation,” “wilderness,” and so forth) by accounting for the eradication of native peoples from the landscape. In her influential book *Black Faces, White Spaces*, Carolyn Finney criticizes social-structural white supremacy within dominant North American ideas for “the environment” in the aughts by demonstrating the continuity of racialized constructions in dominant expression of themes of like “the great outdoors” and the management of national parks in the United States.⁵¹

Criticism of environmentalist notions has also occurred in globalized perspectives within the field of environmental history. For over a decade, for example, work by Ramachandra Guha has comparatively typologized environmentalism in the U.S. and India, such as with categories like American “wilderness thinking.” This perspective validates but also contextualizes the colonial facets of these ideologies, including within South Asia (as with the enduring impact of Gandhi). Guha opens environmental humanities in the Anglophone tradition to themes that would cross-cut global systems

variably but still focus on their historical circulations. This perspective on environmentalism does not depend on static global binaries like “north or south,” or as relevant to this, Muslim-directed work, “East and West.”⁵²

Islamic Studies and the Problem of “The Muslim World”

Muslim Environmentalisms builds on academic groundwork begun in the history of religions by the landmark volume of essays edited by Azizan Baharuddin, Frederick M. Denny, and Richard Foltz titled *Islam and Ecology: A Bestowed Trust*.⁵³ That book’s title term for the environment, *ecology*, is consistent with the early years of the development of the field of “religion and ecology,” represented by the project at Harvard University that supported the book’s publication, which was structured along the lines of named “world religions” overall. From the perspective of the academic study of religion, the methodological challenge is now to develop truly productive parameters for generalization about religions that are not reductively essentializing. These would organize the study of patterns and experience, the expertise of the field of the history of religions, in order to show coherence on the order now expected of ethical systems in environmental humanities (for example, “earth ethics”), which also accurately reflect what are Muslims’ own discourses and practices.

This book reorients “environmental humanities,” ideas from the English-speaking world of the last fifty years or so, with respect to fourteen centuries of global Islam. It engages standard subfields of Islamic studies, such as would be represented in the American academy, now as a spectrum of traditions by which contemporary Muslim environmentalisms are established: through science, doctrine and Qur’an, Sufism, art, and diverse community engagements drawing on shared religious models across global contexts. The methodological tools for this project are time-tested in religious studies and are calibrated in order to yield results for comparison and collaboration in terms of *environmentalisms*, as committed stances to the environment across multiple areas.

The chapters reflect pivotal questions in Islamic studies and history of religions familiar from the past twenty years, such as the following: in chapter 2, consideration of local-global connections, including religion as studied from an anthropological and postcolonial perspective; chapter 3,

balance of text (scripture) and social meaning, a classic concern of the history of religions; chapter 4, linkages of law, ethics, and politics and practice; chapter 5, religious symbol across history and culture; and chapter 6 addresses the academic study of religion, resonant with phenomenological studies of Muslim piety in recent decades. The latter addresses the problem of viewing Islam, social mobilization, and the Muslim everyday, which requires integrating awareness of the long-standing impact of Sufi tradition into conversations about lived Islam.

History of religions and the study of Islam have established methods of addressing all these issues, which may not yet be second nature for those for whom the humanities is still rendered solely with respect to sources in European languages. Nevertheless, to the degree that environmental humanities now aspires to cast itself as geographically global, or retain its entitlement to the humanly universal by characterizing planetary worldviews, it is necessary to approach what is possibly a new frontier of knowledge. Muslim perspectives do more than function to reinforce or embellish, they may also upend configurations in place. Each of the topics enumerated, for example, calls dominant projections onto Islam into question, such as with misplaced universal claims or particularism with respect to authenticity and erasure. These are long-standing issues in the discussion of orientalism in the study of Islam, of which Muslims' occidentalist constructions and critique are also a natural component.

How to cast a critique of orientalism for environmental humanities is salient at this juncture to understanding what is the subject matter at hand. The point to begin with here is not just one about general method and approach in the history of religions and Islamic studies, but another issue, known in Islamic studies and religious studies as the problem of "the Muslim world." A recent book by Cemil Aydin takes up the issue of Muslim world discourse.⁵⁴ This old chestnut is marked by monolithic approaches to Islam and its representations, such as casting everyone-yet-no-one-in-particular as Muslim subject, Arab centric attitudes, and the related marginalization of East Asian and sub-Saharan African regional systems. Since readers unfamiliar with the field of Islamic studies may encounter such critique here for the first time, some explanation follows.

The scope of Muslim-majority and Muslim-minority systems is the whole planet—and even more worlds than that from a religious perspective—however, many of the examples in this book are drawn from Southeast Asia

and particularly Indonesia, the world's most populous Muslim-majority nation. This is the country in which I have conducted firsthand research for more than twenty years, and also where I have been carrying out field-based research specifically on the topic of Islam and the environment for over a decade.⁵⁵ Indonesia represents one of the world's most biodiverse regions. It also contains some of the most severely threatened ecosystems on the planet due to deforestation, sea temperature rise and ocean acidification, and other impacts of land and marine resource extraction and environmental degradation. In addition, Indonesia is also vulnerable to disasters like earthquakes and tsunamis, events that have been interpreted culturally within moralized, if not increasingly anthropogenic, scientific and cultural frames. Such natural disasters are in fact intensified by human environmental factors, such as in the case of increasingly severe weather events like tropical storms that are linked to climate disturbance, bringing with them intensified effects like flooding. Indonesia is not all of the environment, nor the Muslim world, but many of its issues can be generalized. From an environmental perspective, there would probably be no objection to doing so.

Using multiple original examples of Muslim experiences on a regional level also allows for a generalizable discussion about religion to develop with contextual consistency and depth over the course of this study. It would be a fallacy to claim that Southeast Asia, or anyplace in the world, "represents" Islam, or even any Muslim people who in fact are not there. The issue, however, is not about the validity of the selection of Southeast Asia, or anywhere else in the world as being either "essential" or "diverse" enough according to imposed assessment of Islam. This book does not invest in such outdated claims. As per standard theory and method in the study of religion, what can be considered to be replicated are the patterns of interaction of local and global formations, not any regional traits indexed as to how strongly or weakly they might be normatively indexed to be "Islamic." The Qur'an, for example, has authority across diverse systems and expected presence in religious thought and practice; it is not presented here to be a predictor of Muslim attitudes. Instead, it illuminates diverse perspectives that all link to the same multifaceted textual tradition worldwide. There are patterns to these processes, called "tradition," which are to be accessed historically-textually or anthropologically, but

also in a manner that is not incompatible with Alasdair Macintyre's presentation of the term for the study of comparative moral philosophy.

The objective is to explain global patterns extending across space and time, recognizing that sources like Quran and established Muslim traditions of religious thought and practice, as well as historical experience like European colonialism, are shared all across the world in differing registers. Particulars would change if the major cases were drawn from elsewhere geographically, and complementary depth might even build a stronger comparative case for key findings of this work. (Were data not from Muslim Asia, there would likely be no need to state this point at all.) The procedures for making generalizations with respect to parameters of tradition as studied with academic discipline (such as by understanding the reading of Islamic texts in social and historical context, for example) represent sound principles, those on which the field of the history of religions is based.

Bias about the concept of the "Muslim world" that still persists in North America affords West Asia (i.e., Europe's "Middle East") or the MENA region (Middle East and North Africa) privileged recognition. The "central lands" are a historic and symbolic imaginary that circulates globally in Muslim discourses, but the region of Muslim eastern Asia is not comprised by any more or less peripheral of an "Islam" than elsewhere. To take Southeast Asia, the region where as many Muslims reside as the entire Arabic-speaking world (the same could be said for South Asia, sub-Saharan Africa, and also for China), as the locus of global patterns nevertheless can be a provocation even in religious studies, whose enduring colonial prejudices would reserve these regions for "Asian religions" (which still may categorically erase Islam).

My own previous books on the Qur'an, which deployed Southeast Asia as illustration of global patterns, have led me to become accustomed to pervasive bias of "the center," even relative to other Asias. For example, I was questioned by informants during my initial fieldwork on Qur'anic education in Makassar, why didn't I write about Jakarta if I wished to generalize analysis to the national level at any point (or, would I please be careful to specify that I was working in "Sulawesi," and in any case not really Indonesia)? In fact, with the Qur'an, I was studying local, national, and global circulations. The same could be said here for the study of the environment as well.

My field's foundationally phenomenological approach now has accumulated decades worth of best practices for deriving generalization without essentializing that keep *Muslims'* diverse questions and answers about tradition, and the key terms that are used for this process, at the center of analysis. This was illustrated by the previous example about Mount Merapi. Some reduction in analysis is necessary in order to render explanation over and above descriptive translation, as Jonathan Z. Smith taught us, and this is intended to be a theoretical contribution of the book to environmental humanities as well. Generalized conclusions in this book, both inductive and deductive, are not the final word, but rather here represent an invitation to others to test frameworks with the same rigor and depth, as, for example, with their own regional fieldwork undertaken firsthand with sound knowledge of Arabic and all relevant Muslim sources, mysticism to jurisprudence, as well as knowledge of social and political history along with competence in one or more local languages. These approaches would build this area of study and continue a conversation around principles and patterns of varied environmental interpretations of linked areas like Islamic Sufism, law, and Qur'anic study that circulate globally, with an eye to further enhancing prevailing ideas across the fields of Anglophone environmental humanities and environmental studies more widely.

Each of this book's chapters demonstrates how Muslim systems coalesce clustered commitments that are based on human understandings of Qur'an, law and ethics, science and art; these Muslim environmentalisms have human "roots" in these foundational areas as well as "branches" of real-world application and activism. Borrowing terminology from the legal sciences of Islamic ethics, this interaction of roots (*'usul*) and branches (*furu'*) yields a synthesis that formulates "the environment" in the abstract along with distinct biotic "environments" that Muslims inhabit globally. They form interconnected, diverse, and intersectional Muslim environmentalisms insofar as they all address creation as a moral task that is grounded in explicitly Islamic authority and Muslim norms. This perspective may be called Islamic humanities, in the spirit of Shahab Ahmed's recent appeal to the "Importance of Being Islamic," but I prefer to recognize it unqualified just as "humanistic" for the sake of the study of the environment just as "European (post-Christian) humanities" is also known to be "the humanities."⁵⁶ In chapter 5 the humanities receives more focus

as such, introducing formal areas of liberal arts such as literature, philosophy, aesthetics, as well as religious and natural sciences; however, all the topics covered in the book constitute the humanities.

Finally, there is a note to add on the use of the term *orientalism*, which appears at times in the text, especially chapters 2 and 6. It is both a descriptive and analytical expression characterizing a legacy of the European study of Islam that is now not restricted to any particular religious or social position. In the descriptive sense, as in Said's original presentation, it refers to the colonial "orientalists," European scholars who focused on the textual-philological traditions of "the orient" as expert knowledge. This has produced the same scholarly apparatus that is now used the world over, by Muslims and non-Muslims. Now in an explanatory and critical sense, as also in the landmark study of Edward Said, *Orientalism*, it may refer to the connections of colonial power to the production of knowledges about Islam. It also encapsulates a collection of corresponding attitudes. Because Said's work is so well-known, I will present its main points here by way of quoting the author's excerpted words in brief. In Said's account, the following sums up four "dogmas" projected onto Islam and Muslims as the non-"west" or "orient" in the course of orientalist discourse:

- (1) the absolute and systematic difference between the West, which is rational, developed, humane, superior, and the Orient, which is aberrant, undeveloped, inferior; . . . (2) the abstractions about the Orient are always preferable to direct evidence drawn from modern Oriental realities, thus rendering the Oriental passive, speechless, powerless, and requiring interpretation; . . . (3) that the Orient is eternal, uniform, and incapable of defining itself: therefore it is assumed that a highly generalized and systematic vocabulary for describing the Orient from a Western standpoint is inevitable and even scientifically "objective"; . . . (4) that the Orient is at bottom either to be feared (the Yellow Peril, the Mongol hordes, the brown dominions) or to be controlled (by pacification, research and development, outright occupation whenever possible).⁵⁷

In Said's analysis these features would apply to the European colonial period, as well as still after, even up to the present day. This perspective undergirds this book's critique for the emerging environmental humanities, as well as constructive contributions for the field moving forward.

Overview

Often the treatment of ecology and religion (Islam and others) considers what resources may be distilled from tradition (such as scriptural norms) as solutions to “problems,” like a lack of moral concern, or to address a more alarming crisis with affective environmental “awareness” or virtuous sentimental “hope.”⁵⁸ This book, however, has begun instead with a critical investigation of these prevailing expectations. The environment is not assumed from the start to be determined by a problem or in crisis, but through bundled commitments here shaped by Muslim historical tradition; constructively, these help to illuminate what could be our shared project in the environmental humanities overall. I develop the proposition that religion, as informed by human endeavors like law, science, and art, may create the very structures through which humans understand what are their environmental problems, formulate committed environmentalisms, and construe how “the environment” ought to matter as an ethical and humanistic result. Each chapter of the book provides a different view of the multivalent idea of environment, coming with a different dimension of Muslim environmentalism, ranging across environmental studies from scientific or technological response to long-term ethical issues like achieving lasting environmental equity and justice.

The chapters progress from considering how environmentalisms, Muslim and non-Muslim, seek to deploy Islam instrumentally to viewing how Muslims cast environmentalism as a means to achieve religious ends. Chapter 2 considers Islam within an environmentalism that takes the shape of popular global as well as secular messages, like environmental fatwas that accompany conservation initiatives. It presents the ways in which nongovernmental organizations have attempted to enroll Muslims in the propagation of their projects within the framework of “Islam and development” more broadly. Chapter 3 opens with a look at systematic theology and ethics as they are usually deployed in “environmental” Islam, as with Qur’anic verses, programs to “green” the pillars of Islam, and so forth. It surveys other classical sources on core environmental principles, namely, life-sustaining habitation and the relational ontologies of “creatures” and “resources.” The chapter’s discussion then turns to contemporary Muslim environmental voices on the religious roots of

Islamic environmentalism in conversation with key issues in environmental humanities.

Chapter 4 considers Islamic jurisprudence (*fiqh*) and ethics, including further recent efforts to create Islamic environmental law as well as authoritative legal opinions on key environmental issues. Among Islamic legal thinkers, environment is viewed as life support, with the implications of this in theory and practice being that the most critical issues in Islamic law all depend on upholding the well-being of the biosphere. In addition, reasoning on specific resources and questions like water resource management reveal implicit principles of environmentalism within Islamic law. Related practical ethics like *adab* (comportment) show the depth and consistency to these norms from the perspective of global Muslim traditions of everyday practice.

Chapter 5 demonstrates the way in which religion directs both scientific and aesthetic dimensions of Muslim environmentalisms from alchemy to art. Interrelated Islamic disciplines of knowledge shape symbolic systems that comprise “the environment” ethically, and in reference to unknown, yet nevertheless certain, religious and environmental horizons. This encompasses consequences that are at the limits of understanding and awareness, like climate change. The chapter demonstrates a systematic empirical ethos that links scientific, symbolic, and soteriological dimensions of Islamic humanities. This is even deployed instrumentally for environmentalist purposes along the same lines today, precisely because it blends the certain and unknown, seen and unseen, moral and material.

Chapter 6, the final substantive chapter of this book, shows how, for committed Muslims, environmental practice is a religious practice. This is not because environmentalism would be radicalized to the point of religious zeal, but really because of the opposite: religious lifeworlds dictate environmental engagement so naturally that they blend into the ethical and pious practices of the everyday. Self-conscious environmentalism also emerges in tradition, community, and activism as distinct from a secular promotion in these examples largely because of the explicit and implicit structures of what is called Sufism in academic Islamic studies. The chapter gives examples of global Muslims engaging the environment for the sake of Islam (rather than the reverse, as in chapter 2), showing how the authority of ritual and shared experience change the landscape of environmental

activism and devotions. These communities are not fully legible in the academic mainstream due to persistent structures that produce and reproduce problems in environmental humanities, which result not only in misplaced projections of authenticity for Islam but the complete erasure of the presence of any Muslims at all.

Chapter 7 concludes with consideration of how the environment emerges out of Muslim thought and practice, revisiting the book's discussions overall. It summarizes the expectations of consequential relations and justice that have been shown to express Islamic religion in the Qur'anic, legal, aesthetic and symbolic, scientific, esoteric, and moral-ethical modes. These may be characteristic humanistic modes of environmentalism overall—and, by extension, what even is "the environment" itself.

TWO

Islam and the Environment

Pluralism and Development

AN EXPLICITLY “ISLAMIC” environmentalism has been invented within the framework of Islam *and* the environment since the beginning of the environmental movement in the latter half of the twentieth century, and often for specific programs and purposes. These include demonstrating interfaith inclusion to support universalist ideologies as well as programs of states and nongovernmental organizations (NGOs). In contrast to a Muslim environmentalism that shapes perceptions of the environment through its historical conditions and tradition, “Islam *and* the environment” casts the environment in a decontextualized and generalized form and, just like mainstream environmentalism overall, loosely as a European nature concept. As such, it is readily tied to environmental initiatives like conservation. Programs that deploy Islam for the sake of “the environment” may differ significantly from the projects of Muslims who cast environmentalism for religious goals, a key point being that both modes overlap productively. However, the focus here is chiefly the ideas forming the first part of this relationship, which happen also to represent the state of the field with respect to public discourse on “Islam *and* the environment” and many Muslim environmentalisms.¹

Islam *and* the environment plots both Islam and “the environment” as constants across a plane of other variables, especially those of “world religions,” as well as differential flows and power structures like those of international development. This represents a reinvention of Islam as being a

parameter for Islam *and* the environment insofar as Muslim norms are set to fit the constraints and expectations of what are often nonreligious and non-Muslim environmental initiatives. This is not to say that the teachings distilled and applied in the form of such Islamic environmentalism are invalid, but just that they have been produced primarily to support interests that may not originate with Muslims' own communities. Examples of this range across fields of environmental education, conservation (and related Islamic law of environment), and other efforts to assert or to add "value" to the environment through the constitution of religious authority.

Usually Islam *and* environment is imagined within a framework of a plurality of religions, filtered through secular and essentially non-Muslim language. This also corresponds to academic teaching in religious studies of world traditions overall. Following this, English-language NGOs such as Alliance of Religion and Conservation (ARC),² the Nature Conservancy, and World Wildlife Federation (WWF) invent programming for Islam and the environment within an imagined array of world religions,³ reflecting a universalist agenda that shapes specific aims with respect to Muslims in these same terms. Programs are proposed and implemented much the same as are development initiatives with cultural outreach.

For example, the following is an excerpt from the foreword to the book, *Faith in Conservation* (2013), by James D. Wolfensohn, president of the World Bank, which included a follow-up to the influential interfaith Assisi declarations on the environment from some years earlier. It lays out an agenda for the "major faiths" as "partners and stakeholders" in achieving the World Bank's conservation and development goals:

The World Bank is committed to the struggle to overcome poverty. At the same time we must protect the biodiversity of the planet. This is an enormous task and one for which the Bank needs as many allies as possible. In the quest for partners who share such goals and who can also bring their own experiences to bear, we need to look beyond the groups with whom the World Bank has traditionally worked. This is why the World Bank cooperates with the major faiths as partners. In doing so, we follow the example set by the World Wide Fund for Nature (WWF) International. . . . The reason is simple. The 11 faiths that now make up ARC [Alliance of Religion and Conservation, est. 1986] by Prince Philip and the WWF represent two-thirds of the world's population. They own around

7 percent of the habitable surface of the planet, they have a role in 54 percent of all schools, and their institutional share of the investment market is in the range of 6–8 percent. These are serious stakeholders in development. . . . So it is very natural for us to work with religious institutions and leaders. The engagement from all sides is one charged with potential and also energized by differences. In such a fascinating and varied world, full of possibilities but also pitfalls, it is important to have guides who can help chart the adventure.⁴

In such projects, environmental messages are retrofitted to various named faiths, as with the stakeholders described earlier, and religious teachings reworked in accord with related developmentalist agendas. Much material presented in the context of *Islam and the environment* comes out of these same settings, with cognate assumptions.

Typical of both orientalist and world religions approaches to the tradition of Islam, in the presentation of *Islam and the environment*, disembodied scriptural norms often stand in for human religious thought and action within historical communities. An interfaith declaration, such as the original Assisi declarations, whose full title is “The Assisi Declarations: Messages on Humanity and Nature from Buddhism, Christianity, Islam, and Judaism” (1986), is typical of this methodology, which usually gives voice to a single authority as spokesperson for the entire faith.⁵ Despite the commitment to pluralism, and like many other interfaith imaginaries that are clustered around an ideological theme, inclusion of “others” not listed on a limited roster of “world religions” (such as indigenous communities or activists) has not been a priority in the past. The resulting effect is to provide essentially universalist religious authority for what are environmentalist messages and to demonstrate what resources recognized faith communities may offer to address a general notion of worldwide environmental crisis. Implied is that environmental conditions seemingly would affect everyone equally, even those not represented by the world religions framework.

A result of this paradigm is that other “traditions” are expected also to produce “solutions” on the same terms and on par with Christianity. Hence, in *Islam and the environment*, Islamic material (and that of other religions more generally) are still viewed by environmentalists, Muslim and non-Muslim, as resources (scripture, practice, teachings) from which normative environmental messages may be drawn out, or projected onto, and this tends to occur along the lines of mainstream environmental

assumptions. This does not make the Islamic material any less original, valid, or authentic. A recent book by the American Ibrahim Abdul-Matin, titled *Green Deen: What Islam Teaches About Islam and the Environment*, for which the primary intended audience is Muslim, is a good example of a typically lifestyle-focused American discourse, beginning with description of a family camping trip and encouraging environmentalism in the form of private prayer practice, along with joining mobilized social action. Other works by and apparently for Muslims draw on Islamic norms to present specific policy suggestions that fit frameworks like conservation. For example, the conclusion to the English-language work by the scholar of Islamic jurisprudence Mawil Izzi Dien called *The Environmental Dimensions of Islam* offers a prototype document for wildlife conservation; a related attempt to draft an “Islamic” statement on environmental protection (in which Izzi Dien also participated) is titled *Islamic Principles for the Conservation of the Environment*.⁶

However, Islamicizing prescribed environmentalist messages (such as interfaith outreach) requires an essentialization of Islam to assert authority to the desired degree. Those introducing Islam *and* the environment may approach the matter as the inverse of a question about what is “environmental” about Islam: they tend to ask, instead, when can an environmental proposition advanced on the part of Muslims be said to be normatively “Islamic?” Typically, there are two types of strategies deployed in order to register Islamic recognition for an environmental message. First, obligatory Muslim religious observances, like one of the five pillars of Islam, are selected for “greening.” Second, environmental programs that are already underway are given authoritatively Islamic, and usually scriptural, justification. For these latter agendas, voices of religious authorities may also provide additional sanction or justification. Such productions of Islamic environmentalism then serve in turn as an uplifting illustration or example that is reintroduced to a menu of religious pluralism, adding luster to the impression of universalism for a global environmentalist program. Examples of these kinds of structures come primarily from the advocacy of NGOs, although states may be their promoters as well.

Deploying Islam for the sake of environmentalist goals corresponds closely to patterns, and thus also the critique, of international development and religion. This chapter, as well as discussion in chapter 6, includes reflections on the history of Islam and development since many of the

challenges and opportunities of creating Islamic environmentalism correspond to long-standing patterns of global programs as they have been tailored to and for Muslim identities. This is exemplified in the case of the World Bank, for example, which was an initiator and sponsor of initiatives to develop “Islamic environmental law” (*fiqh al-bi’ah*) in Indonesia. Promoting environmentalism through religion puts the development industry into the business of the production of normative Islamic messages. This moves in parallel with other twenty-first-century trends for the global manipulation of “moderate” Islam by official sources, which reflect a deep colonial legacy. It also presumes a legitimacy for the creation of Muslim messages on the part of those who might otherwise claim neither Islamic identity nor any other form of recognized authority with respect to Islamic traditions, but who nevertheless confidently spread the news to Muslims of an environmental religious doctrine with a claim to Islamic justification.

Whether there is any significant difference between the Islamic environmentalism that comes out of these circumstances, on the one hand, and what Muslims themselves create when they start from religious commitments, on the other, is a matter to be evidenced over the course of this book. Many of the cases from fieldwork presented in this chapter show these to be overlapping dynamics, such as in fields of environmental education. One initial observation to be made is that the notion of environmentalism, as promulgated by NGOs and other planners engaging Islam, represents an attempt to manage the thought and behavior of others to achieve specific outcomes. Like Anglo-American environmentalism, it focuses often on individual, incremental behavioral and lifestyle changes into which clear, required obligations according to Islamic law (like the daily observances of the five pillars of Islam) fit readily. Unlike nonreligious measures, religious programs gain additional value and expected influence by virtue of this symbolic authority, a topic that will be analyzed further in chapter 5. However, such projects of religious environmentalism orient themselves to a notion of the environment that is usually bound either to universally transcendent or to narrowly specific “problems,” such as operationalizing cultural values in order to support local conservation initiatives. Such programs as developed by program managers tend not to breach Muslim conceptions of the environment that embrace ethical, empirical, and even apocalyptic dimensions of Islam’s religious frameworks.

Islam and the Environment and World Religions Pluralism

In many English-language treatments of Islam and “the environment,” like those that originate in the UK and the U.S., Islam is expected to become unproblematically subordinated to dominant global environmental frameworks. There are two aspects of this messaging: an environmentalist discourse and a religious one. First, the concept of “the environment” stably represents notions widely accepted since the early 1970s, including the idea that the goal of environmental ethics (especially through religion) is to produce some form of “care” and “concern” to address a “problem” or to address a “crisis.” The second aspect is based in established notions of world religions that also extend back to the twentieth century, if not long before.⁷

Since the publication of groundbreaking material on religion and the environment by Lynn White Jr. and Seyyed Hossein Nasr decades ago, literature in the field of religion and ecology has sought to show that religion is part of the environmental solution (not primarily the problem), i.e., that religions hold the seeds of environmental hope, insight, and mobilization (in contrast to ideologies that sanction exploitation). Projects for religion and environment, such as global NGOs’ outreach to Muslims, follow along these lines. Typical of the quest for materials to be identified within religious traditions that may be sources of “solutions” to environmental challenge and crisis, they focus upon a teaching (e.g., Islamic *khilafah*, stewardship), a ritual (like a “greened” pillar of Islam), or an authoritative public pronouncement (interfaith declaration, Islamic fatwa, etc.). One well-known model of such a program of outreach to a world religion from Asia, non-Muslim, is the Theravadin Buddhist ordination of trees.⁸ “Sacred groves” in Hindu-majority South Asia are other celebrated examples of forest conservation, studied in-depth by Eliza Kent and others.⁹

In my own research on forest conservation and religion in Asia, I found it to be an open question: why, without apparent evidence of successful outcomes (and despite an increasing emphasis on data-driven deliverables) do so many invest in a mission of placing an environmentalist messages into a religious frame? Buoyant confidence that such measures will be as effective, or even more so than other, duplicate forms of nonreligious promotion for achieving results, propagates such measures. Related, it is expected in a postcolonial regime that an “Islamic environmentalism” could originate

outside Muslim systems, such as with NGOs like WWF and even the U.S. Department of Fish and Wildlife supporting conservation fatwas in Indonesia.¹⁰ The gaps are filled by with confidence in the world religions to produce uplifting inspiration, often along the lines of a religious appeal to modify environmental behavior, liberally projected onto others.¹¹

One world religions practice that is highly visible, as it features the public performance of authorities, is interfaith declarations, which represent some of the earliest historical examples of the development of the field religion and ecology. A model for such statements is the nondenominational and interfaith Earth Charter, a proclamation that has been endorsed by many organizations since the 1990s. The initiative began in the USSR in the 1960s.¹² Another famous example, mentioned previously, is the Assisi declarations, for which leaders of five religions were convened by the president of WWF at the site associated with St. Francis. These spectacles of pluralism universalize a particular environmentalist stance in their collective pronouncements. After half a century, the practice of interfaith declaration has recently started to move beyond the Earth Charter's model, however, to recognizing more tradition-specific voices, delivering a universal environmentalist message from a single, exclusive, and confessional standpoint.

For example, in 2015, Pope Francis of the Roman Catholic Church issued the encyclical on climate change *Laudato Si'* ("Our Common Home"). It was simultaneously released in dozens of languages worldwide. Besides providing a sound theological and doctrinal basis by the Church for environmental "care" (a word used many times in the document), it also includes scientific support (this pope himself has a background in natural sciences). It opens, in fact, with a discussion of "environmental science" and "problems," casting the environment in terms of "crisis" and also with overtones of the "contextual" examination of liberation theology. Immediately on release, there was a call for other faith communities to issue comment upon it from a confessional perspective or to issue their own independent pronouncements.

Accordingly, there was an "Islamic Declaration on Global Climate Change" along much the same lines issued at the International Islamic Climate Change Symposium held in Istanbul in August 2015.¹³ Like the papal statement from Francis, it includes scientific data as published by United Nations sources like the Intergovernmental Panel on Climate Change. It

appeals to leaders to address and mitigate the causes and effects of climate change, going so far as to call for alternatives to fossil fuels. The declaration is issued on the authority of some sixty scholars and activists from around the world, many familiar names on the “Islam and ecology” circuit. The sponsors and supporters included many non-Islamic NGOs and agencies (as well as Islamic ones), indicating the hybrid as well as, presumably, diverse shaping of Islamic religious messages.

The intended audiences that are specifically mentioned for the document include all Muslims on earth and all people of faith and conscience, as well as, specifically, delegates to an upcoming scheduled UNFCCC Conference of the Parties summit sponsored by the United Nations in Paris on climate change. At about the same time, similar declarations were issued by the Church of England, and one was expected from Hindu authorities as well. In these examples, and as in many such initiatives, world religions ideology combines with preexisting environmentalist schemes such as conservation. An analytic distinction to make, although one that can never be absolute, is whether Islamic religion is being “greened” in such cases, or environmental efforts Islamicized.

Essential Islam for Islam *and* the Environment

When resources of environmental inspiration are sought from world religions, a popular way recognize and to promote “Islamic” environmental management is to “green” actions that are already normatively Muslim. This commonly occurs through the required and rewarded acts of worship known as the five pillars of Islam, which is typically the material that introduces Islam to non-Muslims. These are: testimony (*shahadah*); canonical worship (prayer) multiple times daily, usually five (*salat*); annual legal alms-giving (*zakat*); fasting during the daylight hours during the lunar month of Ramadan (*sawm*) and celebrating at its end; and the pilgrimage to Mecca performed under stipulated conditions (Hajj), with observances incumbent on all Muslims everywhere at the time the end of the annual pilgrimage period during the month named for Hajj. Two examples of global initiatives promoted by various organizations to “green” the “pillars” are global “Green Hajj” and “Green Ramadan.”¹⁴

Green Ramadan emphasizes recycling in communal *iftar* (fast-breaking in the evening) and it is a program that has been adopted by some mosques worldwide. A typical pledge for Green Ramadan as promoted by the Islamic Society of North America in 2015 (and after by ISNA and other groups), which is intended to be taken up by local mosques in this form, comprises the following five points:

1. Conserve food at *iftars* [communal fast-breaking meals] and avoid being wasteful by giving excess food to people in need;
2. Use biodegradable products for *iftars* and not styrofoam cups and plates;
3. Recycle material, especially plastic water bottles;
4. Replace all light bulbs with energy saver bulbs and thus conserve electricity;
5. Give a *khutbah* [Friday sermon] on the Islamic imperative to conserve and protect our environment.

In turn, ISNA promised to send the mosque community a sapling tree and to give the mosque community recognition for its participation in the form of notable mention in the organization's publications. Such programs focus on changing patterns of consumer behavior through the conduit of required religious action. Materials distributed in connection to the program include additional literature on measures like recycling and changing to energy-efficient light bulbs, iconic of widespread incrementalist approaches to promoting sustainable consumption.

The other program, Green Hajj, comes in the form of a guide booklet available on the ARC website, and it has seen various global launches and promotions. An enactment of Hajj is governed by the norms of Islamic jurisprudence for its validity, and Green Hajj stipulations do not alter any of these requirements of Islamic ritual law, nor does its strategy of environmentalization attempt to change the character of the Hajj as an act of worship undertaken for the sake of religious obligation. *Green Hajj Guide* is likewise rather conservative in its interpretation of the scope of what is environmentally green. It does not seriously address the critical issue of the massive impact of greenhouse gas emissions from jet travel, except to advise travelers to inquire of "sustainable" tourist agencies about whether or not a carbon offset might be available and to suggest to pilgrims that they only perform Hajj one time (but it does not specify why). Similarly,

despite the widespread questioning of the requirement of sacrifice at the end of the Hajj for all Muslim communities, including pilgrims, among Muslim animal rights advocates there is no mention of any alternative to animal slaughter, whether for pilgrims or for Muslims worldwide who also celebrate the “holiday of sacrifice,” Eid al-Adha.

Just as in the case of Green Ramadan, the primary objective of Green Hajj is to rectify environmentally unfriendly patterns of product consumption on the part of pilgrims while they are on the Hajj. It states by way of introduction, for example:

This brief Guide explains the values and principles of Islam to conserve the environment before, during and after pilgrimage. The Guide will enable you as the pilgrim (*muh'rem* [*sic*]) and “steward of the earth” to prepare for and implement a “Green Hajj and Umrah [lesser pilgrimage]” by:

- Asking you to purchase environmentally friendly products and services
- Encouraging you to reduce waste and consumption
- Advising you to live environmentally friendly lifestyles after the pilgrimage

Many of the guide’s other specific suggestions for conducting Hajj involve correcting consumer choices such as, “Do not purchase plastic bags or bottles to bring on Hajj,” and “Purchase fair trade or organic products.” Suggestions for practices to continue on return home from Mecca are similarly about consumer choices in areas like food and energy, much like mainstream environmentalist messages conveyed to consumers across the English-speaking and non-“developing” world. The guide justifies these in terms of fairly standard notions that are found in most popular treatments of environment and Islam: the relation of Creator and created; stewardship (*khilafah*); “balance” (Qur’anic *mizan*); and responsibility for actions, which is framed in terms of not “corrupting the earth,” using another expression from the Qur’an (*fasad*). The religious rationale for changes to Hajj and post-Hajj “lifestyle” are given loosely in the guide under the heading, to “Walk Softly on the Earth” (as in Q. 25:63).

Typical of such normative Islamic environmentalism, Green Ramadan and *Green Hajj Guide* are not systematic with respect to Islamic religious or legal reasoning, nor consistent in engaging the corpus of Islamic ritual law governing these actions. The status of the act of worship alone as an

obligatory “pillar” (fasting, Hajj) provides all the necessary and sufficient Islamic credibility for what are typical “green” goals. The injunction to switch over to more “ecofriendly” consumer habits similarly needs no further justification, at least not in a “first-world” context, representing a solution to the problems of the “sustainability” of a personal lifestyle. Islamic intellectual and historical experience along with environmental justice could provide a potential critique of dominant ideas of sustainability in such an environmental ethics, relevant to global Muslims in the developing world, asking *what* is being “sustained” and in whose interest.¹⁵ However, Islamic rationale, when provided, is usually presented in a motivationally sloganized form derived from the Qur’an: “walk softly on the earth,” not “to corrupt the earth,” and so on.

In the case of *Green Hajj Guide*, verses quoted from Qur’an or a statement selected from hadith are introduced in concise bullet lists at the opening of the document, without additional commentary. This modern, nondiscursive, hermeneutic approach is similar to that deployed by neo-Salafi groups that also seek to invent new Islamic messages while claiming a totalizing authority. Rather than the exclusivism of some global messages of “fundamentalism,” however, Islam *and* the environment supports the perpetuation of a progressive, pluralistic system of inclusive neoliberalism (“responsibilizing” environmental action through structures of capital such as by buying “green” products within a system of commodity circulation and consumption). In addition, the “environmentalist” or “green” messages that structure them (as with preferences for the purchase of light bulbs) likewise originate in non-Islamic or secular green ideologies.

Nongovernmental organizations like WWF and ARC have become known in the world of international development specifically for expertise in targeting religion as an aspect of global environmental programs: WWF, for example, is known worldwide for disseminating projects through religious networks and initiatives in Buddhist Asia; ARC, stationed in the UK and begun by Prince Philip, is one of the most globally active NGOs in the field of religion and environment (it is one of the key producing stakeholders in the *Green Hajj Guide*, for example). At the top of its official Internet website, ARC states the organization’s mission as follows: “ARC is a secular body that helps the world’s major faiths develop environmental programmes based on their own core teachings, beliefs and practices.” The organization also emphasizes that it seeks to train leaders in the resultant productions; it

regularly convenes major summits, such as a meeting held at Lambeth Place in 2016.¹⁶

Alliance of Religion and Conservation does not only environmentalize normatively Islamic action along the lines of the green mainstream (such as with Green Hajj) but also seeks to Islamicize conservation and other measures of interest to global sustainable development initiatives. An example is a published toolkit for leaders who would implement “Islamic Farming,” an Islamic adaptation of an original version that ARC first developed for Christians called “Farming in God’s Way.” The initiatives merged under the project name “Faithful Farming.”¹⁷ At the time of this writing, the Christian version had been put into effect in Kenya, but it is not yet clear what progress has been made in implementing the Islamic version in Africa or elsewhere.¹⁸

The guide is titled *Islamic Farming: A Toolkit for Conservation Agriculture*.¹⁹ It was the output of a meeting convened in 2012 to introduce faith-based conservation in Kenya and across Africa, part of which was to be directed specifically toward Muslim communities. The report was funded the government of Norway (which has sought to offset generously its own petroleum-based economy with “green” international measures in Indonesia as well, such as through the UN’s REDD+ regime), and was produced by the Alliance of Religion and Conservation and Global One, the latter being an international public relations and marketing firm which was also involved in *Green Hajj Guide*. Like many similar programs, such as a concurrent proposal for marine conservation in the Pacific, the Islamic version of the NGO’s farming guide is focused primarily on matters of the program’s implementation.

The structure of the work overall is to begin with Qur’an verses and hadith (authoritative Muslim reports of the Prophet Muhammad’s sayings, actions, and approvals), add local stories, then introduce practical measures (such as what it calls the “6 Ps”). Most of the contents are comprised of recommendations on real farming practices. The last third of the guide is taken up with the actual farming techniques, like composting, crop rotation, natural fertilizers, beekeeping, and so forth. Its distinctive adaptation of Islamic ideas, inserted only at the start, is seemingly the result of Internet searching tailored specifically to the theme of this project.

The executive summary that opens the document reads as follows: “This manual lays out the historical and theological rationale for Islamic farming.

The history of Islam shows that Islamic farming is not a new idea or concept but in fact one that has been lost or forgotten to the Muslim world. The manual outlines the concept of *rizq* [sustenance, livelihood] and the five promises of Allah.”

The “five promises” for “success” (*falah*, the Arabic word used even in the call to prayer, which also means, coincidentally, “farming”) are then given as

1. *Taqwa* (“God-consciousness”)
2. *Tawakkul* (reliance on Allah)
3. *Salah* (prayers)
4. *Tawba* (repentance)
5. *Infq Fisabillah* (charity [however, this is a different and far more unusual formulation in tradition than the usual terms, either *sadakah* or *zakat*])

Judging from its appearance elsewhere on the World Wide Web, the paradigm for this theological statement about the “five promises” is apparently borrowed from the words of Shaykh Zulfiqar Ahmed, a *shaykh* (teacher) of the Naqshbandi Sufi order (one of the most active in missionization, especially in the current U.S. and UK), who publishes in Urdu and in English. It is also an uncommon, perhaps even unique, formulation as it is given; while there are many lists of five religious points in Islamic tradition (five pillars, five aims of the law, hadith of “5 things [to remember] before 5 [more],” and, popular in Southern Asia, five “medicines of the heart,” etc.),²⁰ the “five promises” are not a standard hadith maxim from any collection. Furthermore, in the rigorous traditions of Islamic theology (*kalam*), systematic ethics (*akhlaq*), and spirituality (*tasawwuf*) that follow Qur’an, “the promise and the warning” (such as with *taqwa*, which could be translated as “God-fearing” moral apprehension) relate to the life to come, not the present one. Standing out here are the words *rizq* (livelihood) and especially *falah*, the latter of which happens to mean both “farming” and “success.” It is not implausible in a case like this that the authors of the ARC discovered the material as nonproprietary content on the Internet and subsequently innovated a new theology of “Islamic farming” by way of it, subsequently to be promoted to Muslims overseas as a counterpart to the Christian launch in Kenya.²¹

The manual continues with the summary of its contents, shifting now to introduce the “6 P’s” and aspects of the program which could be shared

across faith communities, in its own words: “[This manual treats] the practical aspects of conservation farming from an Islamic perspective. This means it incorporates the idea of rearing livestock and having beehives on the farm land whilst growing a variety of crops. It also brings in aspects of agroforestry. The six Ps are set out in the manual—with the Promises of Allah for one’s *rizq* being the foundation of Islamic farming. The 6 Ps are Planning, Prepare, Plant, Provide, Protect and Produce.” As with the theological “5 Promises,” the “6 Ps” are also apparently a new invention in and for this context and its messaging.

The conclusion to the executive summary of the Islamic farming toolkit indicates that Muslim authorities are to be officially “trained” in the toolkit’s messaging, mirroring outreach to Christian communities: “This manual is designed for Trainers to inspire and train Muslim farmers on sustainable Islamic agriculture; incorporating their Islamic duties of stewardship of the land and practical methods to increase their harvests InshAllah [*sic*]. We have already begun piloting the manual in practice on farms in Kenya and Ethiopia through the Islamic Supreme Councils of these two countries.”²² The assumption is here presented that the religious leaders will accept the normative treatment of Islam, apparently with official state-level support, consolidating the novel notion that there is such a thing as “Islamic farming” in the first place. “Christian farming,” a counterpart to ARC’s Muslim farming program, is the same in its agricultural practices, but with its version of the manual offering differing biblical scriptural citations to start, and presumably the promotion of local church leaders would be enlisted as agents of the NGO.²³

Over the course of most of a decade, I conducted annual fieldwork in agricultural-intensive areas of Java, Indonesia, on what could be called Islamic farming in institutional settings that informants explicitly identified environmentally as ecological (i.e., “eco-*pesantren*”). These settings were mostly rural Islamic schools that have had close ties to local cultivators for generations, and many of them have been promoting practices like the use of organic fertilizers and cooperative distribution of produce since the middle of the last century.²⁴ Across these numerous Islamic schools (Ar. *madrasah*, Ind. *pesantren*) long famous for sustainable agriculture, such as Pondok Pesantren “Al-Ittifaq” in Ciwidey, West Java, and Pondok Pesantren Pabelan near Jogjakarta in Central Java, I discussed with more than a dozen prominent leaders the implementation of sustainable

agricultural practices with Islamic authority and rationale. In my research I found that though religious leaders had much to say on Islamic teachings about Muslim environmentalism, measures such as the decrease in pesticide use and new practices for cultivating rice plant seedlings, while promoted through the authority of the religious school, were not presented as “Islamic.” It was just farming. There was one exception to this, as explained to me, an issue remembered from decades ago concerning whether the use of “organic fertilizer” (i.e., animal waste) made produce legally *haram* (forbidden in Islamic religious terms) for consumption. In the context of Indonesian government programs to promote pesticides as part of the nation’s green revolution, religious leaders led campaigns to convince local Muslims that organic fertilizer was both safe and *halal* (Islamically licit). Otherwise, even at these religious pesantren, the “Islamic” nature of farming practices was never marked out.

In the case of Islamic farming in Kenya, in contrast, the efforts of an NGO to render Christian and Islamic versions of handbooks for organic and sustainable farming techniques essentialize a religious approach in terms of named world religions’ faith identities. This attempt to construe shared practices with regard to normatively Islamic or Christian labels, what scholars could say represents a trend of the modernity or postsecularity of religion overall, is here for the sake of operationalizing project buy-in among community members.

While there are no verifiable external evaluations, I have been told in personal communication with leaders of NGOs in Indonesia like Conservation International in Jakarta that sometimes a religious rationale developed strategically in this way is, in fact, what really works in the face of community resistance to adopting outsiders’ planning. In a firsthand report, for example, I learned in communication with a countrywide director of a major conservation NGO that in a particular instance the only way to get local communities to support a conservation measure (protecting a local watershed) was *not* to immediately foreground needs like public health, but instead to point out that without clean water there could not be proper ritual ablutions made, and thus no proper Islamic prayer, a religious requirement for admission to the garden (*al-jannah*) in the world to come, according to most Muslims’ reading of the Qur’an (which mentions *salat* often specifically in terms of such obligation and reward). While religious, it was not Islamic identity that was operationalized, in the sense of being a

member of a faith community, however. It was maintaining access to environmental resources deemed necessary to get to the landscape of reward in the world to come.

Despite qualitative evidence like this, and while supported by commitments of many environmentalists the NGO industry, some agencies, notably those with USAID funding since 2001, for example, have been reluctant to work with local Islamic religious leaders (the concern is that contacts' names might later appear arbitrarily on a list of the disfavored). Nevertheless, as is clear from examples given so far in this chapter, at least a few agencies are comfortable creatively innovating and openly disseminating new Islamic doctrine, readily assuming the welcome cooperation of Islamic scholars in that effort. In these interventions, for which plans call for Islamic cooperation, NGOs like those active in the field of environmental conservation also follow long-standing models in the international development industry both in the approach to religion and to Islam.

Environmentalism, Development, and the Political Economy of Inspiration

Developmentalist approaches are often interchangeable with official projects for “Islam *and* the environment.”²⁵ This usually occurs in one of two registers. First, there is a tendency to project the discursive style of international development agencies in public and publicized productions. An example is the “Muslim Seven Year Action Plan,” which came out of a meeting in Kuwait in 2008.²⁶ This document, while vague in its recommendations for seven years of planned environmental action, is highly developmentalist in structure, fitting into the planning frame with its bullet points and lists and time frames for the implementation and revision of its rather nonspecific goals. Some participants have expressed disappointment in personal communication and even in print that there has been little follow-up on this initiative, which is also common to projects sponsored through grant cycles of international aid. To the degree that this is one type of developmentalist discourse on Islam and the environment, it is also open to some of the standard critiques of international development, which have long claimed that the schemes twentieth-century first-world planners have failed in many regions, and in many respects.²⁷

Programming for the UN's Conference of the Parties summit on climate change in 2015 demonstrates another type of developmentalist approach to religion and environment, and, by extension, Islam, one that is more familiar with respect to the previous discussion of the intersection of the field of religious studies and the environment. These follow along the lines of faith-based declarations of commitment, taking after the paradigm of the Earth Charter of 1987. For example, ARC's "Summit of Conscience for the Environment" (July 2015),²⁸ endorsed by the president of France (the nation hosting COP 21, the "Sustainable Innovation Forum"), posed the question, "Why do you care about the environment?" The promotion of a personal "caring" was the key goal of the event, accompanied by invitations to generate one's own public content online through personal testimony. Pluralistic inclusion is thus signaled by post-Christian affiliation of secular conscience.

Long-standing paradigms of "development" ("Seven-Year Action Plan") and religion, ethics, and even "spirituality" ("Summit of Conscience") remain unaltered in these examples, supporting a claim that has been heard elsewhere since the beginning of the 2000s, that the development industry has little systematic theory or practice for working with religion, environmentally or otherwise. Within this context, Islam presents a further unique case, in light of postcolonial critiques of "orientalism" following Edward Said, and further with respect to the geopolitics of oil. In general, however, it can be said that the academic field of development studies, particularly the mainstream, has remained quite disengaged from the study of religion, to the degree that the topic did not enter significantly the standard development critique of the first wave.²⁹

That in the academic study of Islam specifically the question of development is still relatively untouched is somewhat remarkable from the vantage point of the robust literature that was produced on Islam and "modernization" in the past century, and even before, going back to Max Weber's writings on Islam.³⁰ In the middle of the twentieth century, pioneering work published in European languages considered Muslim societies and development in the era of "new states." Some of this research on areas of Africa and Asia, notably that undertaken by Clifford Geertz on economic development in Indonesia,³¹ was sensitive to the local adoption and adaptation of social and political structures. There are now some contemporary studies of Islam and development,³² along with a related literature on Muslims, community activism, and civil society.³³ Most recently, the growing

academic study of women and Islamic legal reform, and Muslims and gender more generally, considers some lived dynamics of development and social change.³⁴ However, many questions remain understudied and undertheorized, especially through an explanation of how Islamic social thought and practice combine in such contexts, which is a nexus for the understanding of the transmission, reception, and possibly even effectiveness of messages about Islam and the environment.

Nevertheless, in reality, even if not yet fully in theory and practice, “religion and development” do overlap dynamically in global environmental lifeworlds and political ecology, as they have for a long time.³⁵ Historically speaking, some of the most engaged nongovernmental organizations that work on environmental and nonenvironmental issues in Africa and Asia, and elsewhere, are religious groups. Many mainstream NGOs also have religious affiliations, such as Worldvision, while many others have old roots in religious institutions.³⁶ Jonathan Benthall and Jérôme Bellion-Jourdan write in *The Charitable Crescent*, their landmark study of the NGO sector of the so-called Muslim world (i.e., West Asia, the Middle East, and North Africa as the MENA region), “One can . . . argue that the entire Western tradition of charity, resulting in today’s enormous NGO sector, has historically deep religious roots that are not always noticed.”³⁷ The transformative and ideological outreach of mainstream NGOs, namely vigorous programming efforts toward democracy, rule of law, civil society, and environmental sustainability, and even sentimental “care,” I have argued elsewhere to be, in some sense, like a “religious”—or at least a missionizing—worldview. As previous examples also indicate, global environmental programming with respect to religion attempts something similar to missionization with mainstream environmentalism, as it invents religious doctrine to fit post-colonial themes around conservation and resource management, and also as it simultaneously preaches conscience and lifestyle change. Naturalized as the field of religion and the environment, this structures religion, environment, as well as Islam according to the interests of the powerful stakeholders of international development who act on behalf of the nation-state.

In academic work in the relatively new field of “religion and development,” which has really begun only since the aughts, ideological intervention has come to be recognized as a kind of missionizing model. Philip Fountain, for example, expands the notion of proselytization in a recent

article to “all practices that seek social transformation, which is to say that *all* development is proselytizing,” and identifies proselytization with “institutional moral practices of transformative interventions aimed at reworking the social practices of others.”³⁸ Fountain, a scholar of Christian Southeast Asia, draws on multiple studies, many in Muslim-majority settings such as Somalia, and writes: “What differentiates development and humanitarian projects is not a religion-secular divide, but rather diverse transformative goals, methods of intervention, and targeted ‘others,’ and the ethics of change-seeking practices.”³⁹ He concludes: “Eschewing a tired and inadequate secular-religious dichotomy and an accompanying essentialist framing of religion, I have proposed instead that proselytization be redefined so as to encompass all moral practices of transformative interventions.”⁴⁰

Environmentally oriented NGOs and the promotion of their associated messages through religious frameworks can also be analyzed in terms of this model, along with established critiques of developmentalism. In Islamic systems the long colonial history of intervention in Muslim doctrine and practice, as well as their continuities in the present period, fits with Fountain’s terms, including *transformative goals, intervention, targeted “others,”* and *change-seeking practices*, on multiple levels.

It is not a coincidence that expectations of moral and material uplift that are characteristic of religion and ecology are shared with those typical of religion and development. They have been shaped in the same context and, significantly, through the same discourse. When more than one prominent scholar in the field of development over the past decade has called for a “new paradigm” to apprehend developmentalist and religious dynamics together, they demonstrate the same tendencies across all these fields.⁴¹ With this, many have seen it as a step forward to express a religious language in a Marxian key, and vice versa, just as Latin American liberation theologians like Leonardo Boff and Gustavo Gutiérrez were doing in the 1960s.

For example, in 2003 prominent theorist of development in Central America, Wendy Tyndale, expressed an enthusiasm that was characteristic of the first writings on the topic of religion and development a decade and a half ago, announcing that it was time to “look at some of the difficulties of the relationship between religion and the mainstream development thinking of our time in order to show the commonalities of both ‘idealism’ and

pragmatism on both sides of the divide. There are also, of course, many overlaps between the two worlds.”⁴²

Usually, when such theory and practice has been heralded as a new paradigm for the project of marrying religion and development, as an overlap of “spiritual” and “material” domains, it paints the same picture of “hope,” “care,” and “concern” that has dominated mainstream environmental messages. For example, it characterizes religious studies in the U.S. inside and outside of its original settings in Christian seminaries, such as at prestigious divinity schools like Harvard University and Yale University, through its School of Forestry and Environmental Studies, and the new Center for Earth Ethics affiliated with Columbia University.

Translated into more widely humanistic and potentially neoliberal terms, the “paradigm” essentially amounts to a “flourishing” concept, leaving open the question of differing degrees of community organization and activism like environmental advocacy.⁴³ Ideologies that shape the mainstream nexus of religion and development, and by extension the environment, in these registers may become perplexingly devoid of political and postcolonial critique when trafficking in religious inspiration, such as when they operate on behalf of religious communities such as global Muslims.⁴⁴ For example, in the foreword to a book on the topic of religion and development edited by Wendy Tyndale, Arvind Sharma, scholar of Hindu texts and author of the popularly assigned textbooks *Our Religions: The Seven World Religions Introduced by Preeminent Scholars of Each Tradition* (1994) and *The World’s Religions: A Contemporary Reader* (2010), as well as *Women in World Religions* (1987), proposes a new academic approach that blends spiritual and material worlds. Sharma’s presentation of religion and development encapsulates an ethics of virtuous flourishing that he claims to be revolutionary precisely because of its enhancement of classical Marxism:

[The approach of this book is] potentially revolutionary in no less than three ways: it demonstrates (1) that spiritual and moral development might contribute to or even lead to material development; (2) that, to up the ante, the relationship of the material to the spiritual realm may not be a one-way street, as fellow travelers might insist and as much of both formal capitalist and Marxist thought has dogmatically presupposed; and (3) that, to up the ante still further, a holistic view of the world promoted by the spiritualities associated with the various religions of the world may offer a more comprehensive concept of

human flourishing, including economic well-being, than the reductionistic view of the world promoted by modernity and modern economics, and that a spiritual efflorescence might simultaneously contribute equally to a spiritual as well as material flowering.⁴⁵

This vision of religion and development, coming from a scholar of world religions, allows for some emancipatory and Marxian notions along the lines of liberation theology, but at its heart Sharma's statement implies that religion (universalized as spirituality) attenuates developmentalist goals within a world economy of inspiration, not resistance. This incorporates both the developmentalist and post-Protestant strains that are typical of Islam *and* the environment as a discourse. Such a perspective might also explain confident, ideational operationalization with respect to Muslims and others, suggesting further how this may gain historical intensity through the manipulation of Muslim messages in a neocolonialist key of environmentalism.

"Local Values": Development, Religion, Environment

Muslim reception of global environmentalist messages, even those propagated by the state and international development and conservation agencies, is always local. The world religions paradigm of programming, while presuming a resonance of values, is cast as a one-way transmission into these contexts. Such a development vision typically does not account for ways in which messages are received, whether with respect to Muslim communities nor any other, nor the original structures that come out of interaction and exchange. Translation to a regional or community scale, along with associated circulations across multiple social boundaries, alters any discussion of values in Islam, religion, development, and environment from the discourse of environmentalisms such as with conservation, or the expectation of human "flourishing." First, there is as productive an area of overlap and exchange between structures of transmission and reception, ideational and material, as that between programmers and communities. Second, the "environmental" and religious values of a local Muslim community may emerge in terms that adopt international development goals, but are nevertheless reworked through distinct Muslim systems.

These represent old questions about “local knowledge,” which are central to development studies and geography today.⁴⁶ Clifford Geertz, known as a pathbreaking scholar of religion, Indonesia, and comparative Muslim studies, is recognized as a key figure in the anthropology of development. Geertz also pioneered study of the “local” as a category in cultural anthropology during the period of “new states” and the Green Revolution. When I conducted fieldwork with communities in central Java, close to the same site at which Geertz conducted his fieldwork for the classic *The Religion of Java*, I was struck by how often religion and environment was theorized self-consciously on the scale of “local knowledge” by Muslim actors themselves. The expression *kearifan lokal* was well known—and I was not sure whether it came from Geertz’s coinage (his collected essays are titled *Local Knowledge*).⁴⁷ “Local values” of environmentalism raise other questions, such as how to study values that overlap but that are nevertheless discontinuous? And, in a postcolonial study of Islam, how to recognize and express hybridity without reproducing essentialized “Muslim”/“non-Muslim” binaries?

From this perspective, it is more than just the case that messages transmitted differ from messages received. When viewed on the local scale, and with the same environmental vocabulary circulating among multiple actors (NGOs, local leaders, and so forth), any discourse of the environment may be highly fluid in meanings. Terms absorb and produce new ambiguities mimetically that themselves then recirculate throughout the system (such as in the reflexive form of funding proposals). Analytic tools to register the exchange require knowing local cultural systems to recognize such convergences and disjunctures. This has been recognized in principle for a long time in the field of regional Asian studies. For example, area specialist Jonathan Rigg wrote the following about development and participation in Southeast Asia in a first edition of a popular textbook, *Southeast Asia*, which has since been reprinted many times: “[The concepts development and participation] do not mean the same things in different cultures and languages. They emerge within unique cultural and historical contexts, and reflect existing power relations and hegemonies that are local or national rather than global.”⁴⁸ Work today such as Tania Li’s on mainland Southeast Asia shows how such dynamics function with respect to indigenous communities.⁴⁹

Asking the central question of how to bring together Islam and environment in a way that is true to the local as well as the power of prevailing developmentalist structures began for me over a decade ago when I conducted original fieldwork in Kampong Cham and elsewhere in Cambodia on Cham Muslim minorities. I found that a distinctive system of Muslim religious symbols focused on mosque and institution building, locally determined and globally shaped, linked ideals and realities of Islam in connection to present, past, and possible futures as visions of development.⁵⁰ These blended so well, in fact, with mainstream developmentalism and other ideological agendas that there were not conceptual tools to analyze them from a humanistic perspective with standard academic vocabulary about Muslims, like *tradition* and *modernity*, etc. As in cases of Muslim environmentalisms discussed later in this book, there was not a distinct binary of values (local/global, religious/secular, Islam/non-Islam or even “non-West”/“West”) to be treated as a contrast or that otherwise could be compared by way humanistic approaches like “symbol” and “imagination” applied elsewhere in this book. Structurally, an overdetermination of shared interests and differences referenced the same institutions and resources including mosques, the state, and foreign aid.

For a year living in the field in Cambodia (2003–2005), the category of environment was invisible to me, as I began work on a project that would eventually culminate in this book’s analysis that explains why that ever would have been the case. I had a Fulbright, an NEH grant, and regional Council of American Overseas Research Centers (CAORC) funding to look at patterns of schooling and social change along the Mekong River, the traditional area of Cham Muslim settlement, and I was working with Cham Muslim communities in cities like Siem Reap, Phnom Penh, and even transnationally in Malaysia. However, I came to realize that the way in which I posed the central research question about the intersection of religious revitalization and recovery since the Khmer Rouge era did not match local systems. Villagers would provide demonstrations of Islamic schooling for me, likely inasmuch as they mistook me for an agent of the U.S. development industry. Cham Muslims across the Cambodian countryside wanted to build new mosques as symbols of resilience after the era of the Khmer Rouge, mirroring contemporaneous projects in Buddhist construction as documented by other scholars in the field at that time like John Marston. I was taken on tours, such as being shown a mosque

in Svay Khleang whose roof, it was said, was “smashed” by the Khmer Rouge and still had to be rebuilt.⁵¹ Over the course of years I came to realize, however, that the ethnographic story to tell about Muslim renewal was about religion, development, and environment.

In village after village along the Mekong River, the people were talking about an environmental issue, even if they did not frame it in the same language. They asked what was happening to the fish, the traditional source of sustenance for Cham Muslim people. Fish harvests had declined suddenly and alarmingly in those years, 2003–2005; upstream dam projects had just been completed by neighboring nations, but no one knew that yet in the downriver communities in Cambodia I visited. This was an environmental situation that my education in religious studies and fieldwork on Islam in Southeast Asia had not trained me to recognize, much less narrate. To see conditions in terms that were meaningful to these communities themselves meant significant adjustment to my way of seeing as a scholar, from recognizing field data (e.g., the disruption of lifeways) to working out conceptual interventions in approach and analysis, even to Islam, my own area of fieldwork expertise in the region.

After an ensuing decade of fieldwork on Islam and resources in Muslim-majority and Muslim-minority mainland, peninsular and island Southeast Asia since the aughts, I found the most helpful themes to consider ideationally and institutionally, as a nexus of environment and development, have not been flourishing, spirituality, or even loving nature, but instead to think through local structures in terms of relationality, which are the committed focus of multiple interests, these being 1. global interventions,⁵² 2. patronage systems, and 3. alternative interpretations of mainstream programs (such as Islamic reform or education), offered locally. These also convey values that are operationalized, even monetized, in programming and that overlap but are still discontinuous with respect to localities and other formations. They are relevant to institutions with symbolic significance, but not only or even primarily in terms of the doctrine instrumentalized by interventionist programs. An account from fieldwork in Cambodia provides an illustration.

Over time spent in the field in Kampong Cham, I came to learn that an official public diplomacy initiative on the part of the U.S. months before my visit had raised expectations for a form of local patronage. A few months before my arrival, representatives of the United States toured villages in a

high-profile campaign, giving speeches alongside local officials to audiences numbering in the hundreds. They told the Cham Muslims that aid from the U.S. government was available. They solicited villagers' input on what it was they thought they needed. Villagers stepped up to the microphones and met in community groups, informing their guests about salinated wells, roads that needed building, depleted fish harvests, and other pressing problems, many of them "environmental." The response of public diplomacy officials, that there was a maximum \$25,000 available to U.S.-registered NGOs for projects connected to themes like democracy, was lost in translation. The promise of the initiative itself, and not the mixed messages of its substance, was what seemed to translate the most clearly across all sides without distortion.

Later, as I followed a string of mosque inaugurations in the region of Kampong Cham, I heard about the Shared Futures outreach campaign to Muslims on the part of the diplomatic "mission" of the U.S. embassy. This was mentioned often to Muslims by a representative who was attending the openings. As a Fulbright scholar, I had access to embassy staff, whom I had interviewed about Shared Futures. In one instance, I traveled for hours with Muslims responsible for one of the mosque inauguration events who were going to the provincial capital city on their own expense and initiative, keen to meet with an American official. I attended their meeting in a hotel lobby in order to translate words and ideas. These committed Muslims, like many Americans also in 2005, were not active sympathizers with the American foreign policy of the George W. Bush era, including the recent invasion of Iraq, while at the same time they also sought ideologically motivated gifts from the powerful patron, the U.S. government, in order to support their community development project, an Islamic school.

It turned out that the United States of America was only offering a limited number of backpacks to selected groups of Muslim school children nationwide. Just which groups would be lucky enough to receive the Shared Futures-branded backpacks as the mission's outreach to "moderate Muslims," however, was yet to be determined by some sort of selection process. I explained to the Muslim leaders, who were at the stage of imagining a school construction project at the site of a new mosque, that these were just bags. I remarked that the children would still have no books or supplies to place in them to carry to school, even if the planned building was ever funded and completed. I asked my own question in three different

languages and then translated the answer back again: the backpacks would have large American flags on them. After tense jostling, my friends' names were placed on a list.

I came to see this unfolding drama and its stakes for all involved as aspects of a performance of religious developmentalism, reflecting key facets of the commitment to interventionism and patronage on all sides. The earnest pursuit of superficial tokens suggested to me, with irony, their depth and significance within a world of Muslim religious developmentalism, especially insofar as these opportunities were perceived to signify globalized valences of schooling, education, and religious space. Local institutions were the nexus of intervention, patronage, interpretation. Similar patterns prevailed in environmental systems I would study in Southeast Asia over the next decade in Muslim Indonesia. Here again, a prevailing expectation was that religious, social, and environmental change would extend from similar structures like social networks, teaching and schooling, and established institutions of education.

In Cambodia a developmentalist language had permeated national public culture since the nation came under UN jurisdiction in the early 1990s. In addition, Muslims in Cambodia had, by all accounts, not yet profited from an encounter with global transnational aid agencies at the time of my research. In 2005 Cham Muslims were still viewed by these organizations as having their own alternative networks. Officers in the field confirmed in interviews that to date there had been little outreach to Muslims by large organizations such as Oxfam and Save the Children. At the time, many NGOs were pulling out staff to relocate to new conflict zones in Afghanistan, Iraq, and other hotspots. Simultaneously, in the years after 2001 the U.S. government intensified its mission of diplomatic outreach and intervention regarding "moderate Islam" to Muslims, such as by holding the listening sessions in rural areas in which I worked. News reports had circulated that Cambodian Muslims could be radicalized by foreign interests. It was assumed in global media that doctrine was the nexus of potential social change (as for antiradicalization), when my own ethnographic data showed in contrast that Cham Muslims' transnational focus emphasized extended social networks and patronage, not religious ideology *per se*.

For example, during fieldwork in Cambodia, I was often asked by Cham Muslims whether, when I was traveling next to Malaysia (and usually I was), I would please show people photos of the local school—maybe someone rich

would help; or did I know any American Muslims of means, and did I think that they would be willing to help rebuild the mosque or guarantee a teacher's salary (at \$25/month)? Such patrons did exist for Muslim Cambodians, and notable funders from Malaysia, for example, supported local projects in a mode of conspicuous invisibility by way of community agents and go-betweens. Such anonymity is central to the piety of Islamic philanthropy, and the practice itself may reflect the high social status of the benefactor. These conditions are also typical of patterns that have emerged in recent decades across Muslim Southeast Asia, as pious industrialists have increasingly supported Islamic social and cultural revitalization. Typically, and certainly in Cambodia, local Muslim networks and systems of kinship and religious authority structured Islamic systems of religious philanthropy. In my fieldwork, Cham Muslims continually sought to establish one-on-one linkages with benefactors at home and abroad to support particular projects. Any paradigm of religion and development for programs of mainstream environmentalism in Southeast Asia or elsewhere will intervene within such structures of real, local Muslim communities that are already long connected to transnational Muslim networks.

The programming of transnational NGO outreach and Muslim sensibilities was simultaneously overlapping and discontinuous with such systems. In their book *The Charitable Crescent*, Jonathan Benthall and Jérôme Bellion-Jourdan similarly assert that transnational non-Muslim NGOs do not present the same values to actors within Muslim systems as they do to others. As a result, in the authors' words, they may be viewed as "elements [that] are external, 'top-down' impositions—missing that essential element in productive human association, which is . . . trust and cooperation." The authors conclude, "Scholars . . . [are] justified in being suspicious of rhetoric about the contribution of NGOs, which is often exaggerated."⁵³

An example of discontinuity was when a representative of a major U.S.-based foundation suggested support for Cham musical groups, as an alternative income to traditional lifeways like fishing and small-scale commodity trading. He was apparently thinking of Indonesian and Malaysian women who perform *nashid* (devotional religious music) in colorful matching outfits.⁵⁴ When I relayed this suggestion to a Cham Muslim who himself wanted to start an NGO, he replied flatly, "There is no music in Islam"; in any case, such traditions had died already along with the people. Another suggestion was to develop "Cham handicrafts," such as embroidered motifs on linen

blouses. No one to whom I spoke had a problem with an invented, or marketed, Cham tradition. The concern, however, was the expressed worry that tourists would “buy out of pity.”

What were instead areas of overlap between intervention, patronage, and interpretation were educational programs or initiatives that were otherwise symbolic of community building. This was prominently the case with schooling projects and mosque construction or repair, projects from which many actors may profit through transparent as well as unspoken mechanisms. Local emphasis on issues like educational institution building, itself a powerful symbolic register (especially in the context of what was seen as continued revitalization and recovery after the “time of Pol Pot”) can often take precedence over propagating doctrine. The insight remained relevant to projects I later observed over the coming decade in fieldwork on Muslim environmentalisms in the region. In general, the uneven dynamics that conflate “external” and “internal” interests, not the dialectics of any inherent contrast, drive forward these same development structures in local Muslim environmentalisms.

“Top-down” agendas and “grassroots” ones had significant ground of overlap with respect to capacity building, especially in education and through the shared focus on institutions of schooling. Such interests operated at the level of “face values” like patronage. There is therefore a need to view such religious environmentalist dynamics through these institutions and their symbolism *as such* for communities, not primarily as conveyors of doctrine. This was the case in a pronounced way in Cambodia at the time of research, when capacity building (such as new revitalizing mosque and school projects) was also symbolic of recovery from the period of Democratic Kampuchea, indicating resilient survival of a genocide that had specifically targeted Islam since the first years when Muslim religious leaders disappeared in eastern Cambodia.

A modified neoliberal developmentalism seeks increasingly to determine cultural environmental “values” through religion and to operationalize them in Southeast Asia, and globally, especially in areas of ecosystem and wildlife conservation. This value creation, common to developmentalist strategies with respect to the environment, and as it now seeks new frontiers for “capital,” takes the form of tangible creating and managing monetized value.⁵⁵ In global Muslim contexts, conservation projects thus ascribe material value to nature not only through resources that are extracted

but also by calculations such as revenues from ecotourism and related production of religious and cultural value, including Islamic law itself as a system of evaluation. This intervention intensifies the institutional emphasis of local Muslim environmentalism through patronage and other trans-regional systems of Islamic power and prestige.

Operations of Environmental Education, Tourism, and Politics

Institution building is a shared focus for local and nonlocal systems, religious and nonreligious, across attempts systematically to address religion and the environment on a Muslim basis. For the environment, there is a set of terms shared among Muslim and non-Muslim systems that is found throughout the power dynamics of their interaction, and for which meanings and values may diverge inside and outside any area of overlap. My field study indicates that two features tend to prevail in the area of shared interest among local-religious and global-developmental Muslim environmentalisms, and it would be an oversimplification to identify either one of these too starkly as being either “Muslim” or “non-Muslim.” First, for local Islamic communities, education is a confluence of developmental and religious structures to build institutional capacity for environmentalism. A second dynamic is the production of ideological or material value, such as through the projects of conservation NGOs and other state and aid agencies. These visions of institutional development for Islam and the environment involve local politics, which potentially implicates global systems such as Islamic revival, nationalism, globalization, and capitalism. These areas are themselves not separate one from another. “Values” are often institutionalized, operationalized, and even commoditized in education and may be further monetized in related programs such as for ecotourism.

The intersection of education, development, and religion with regard to the environment is robust in the case of Islam because of all the factors discussed previously like intervention and patronage; in addition, this propagates patterns in Islamic education that extend as far back as the first centuries of the `Abbasid Empire.⁵⁶ Now, in the twenty-first century, in global discussion around Islamic studies since 2001, there has been a focus on the *madrasah*. Colonial patterns persist in this, as Islamic education continues to be popularly presented in English-language reports as a site for the

dissemination of dangerous ideas, or indoctrination, on the one hand, as well as projected through the compatible lenses of gendered and liberationist discourse on the other. Historically speaking, coming along with modernizing trends in Islam of the twentieth century and even long before, as studied by scholars of Islam like Dale Eickelman, education has been a powerful mechanism for reform, and this has been no less the case in Southeast Asia than anywhere else. Education is also the emphasis of many types of Indonesian Muslim environmental programs, manifesting what could be called both top-down and also grassroots interests. In addition, teaching and practice that have long been integral to Muslim Asia are now being recognized and promoted for “environmental” characteristics in a mode that is even identified self-consciously as Muslim environmentalism.

Muslim and non-Muslim NGOs typically turn to authorities present in various styles of schooling to disseminate environmental practices among local and national populations; in Indonesia, Muslim religious schools (*pesantren*) have long been leaders in agrarian communities, and so this is a natural field for those who wish to develop institutionalized Muslim environmentalism. Across these institutional settings of many types, my own research has shown, Islamic doctrine of the environment remains fluid. For example, the national Muslim organization of Indonesia known for its rationalized schooling system, Muhammadiyah, began to develop a curriculum in environmental studies out of its central headquarters in Jogjakarta in about the year 2011. This included a flagship “green” school in its *kauman* neighborhood, which had won the prestigious national Kalptaru Prize of highest recognition from the Ministry of the Environment. Environmental education was a requirement. However, the formal curriculum at this time had been, and was even for some years after, left to instructor-determined “local content” (a formal designation in Muhammadiyah curriculum planning), apart from school-supported activities like composting waste. Even with Muhammadiyah, famous for its structured educational system, the curriculum was open.

There was a new official designation for institutions, now called *ecopesantren*, in Indonesia starting in 2010–2011.⁵⁷ These institutions are traditional residential Islamic schools,⁵⁸ historically located in the countryside and under the authority of a *kiai*, or scholar. They have long been involved in agricultural production and have been leaders in the cooperative movement in some locations since the middle of the twentieth century.

In the early aughts, Indonesian agencies, including government ministries, started to promote the idea of eco-pesantren by formally assigning the label to selected institutions. What criteria would define a school to be an eco-pesantren was a question posed at the time, and even after the official announcement. Some of the qualifying features of these institutional sites were recycling *wudu* water for reuse (as for irrigation) after ritual ablutions at the mosque, composting organic waste, “green” and tidy grounds with all the trash picked up, and having a library. Curriculum was not a criterion in this; as I asked dozens of *kiai* what they taught as “love of nature” (the curricular catchphrase often heard), the answer in Indonesian was typically given in terms of a pedagogy of the heart for “environmental study”; for example, it is up to each pupil him/herself; or, I would be instructed with the wave of an arm just to look around—all the grounds, the whole world, is an “open classroom.”

Occasionally an eco-pesantren had been started intentionally, such as the site in West Java Darut Tauhiid as well as Pesan Trend Ilmu Giri in Central Java,⁵⁹ both of which attempted to work with local farmers on adjacent or acquired land. The two had some interest in ecotourism and promoting “trainings” at the time for fieldwork, and any religious environmental doctrine was a follow-up to such program building in these institutions. Usually, however, the designated eco-pesantren were established and well-known institutions like Darul Najah in Jakarta, Al-Ittifaq in West Java, and Pabelan in Central Java. In these cases, practices long in place at these Islamic schools, from farming cooperatives to promoting “organic” fertilizers and soil remediation, even outings modeled on the activities of the Boy Scouts, are labeled environmental. Under some circumstances, international NGOs provide project-based support and, to a degree, prestige.

Although some NGOs are involved in doctrinal outreach (as in the case of Islamic farming or environmental fatwas), these organizations’ intervention in Muslim religion comes out of a second and institutionally secular framework for Islam and the environment or Muslim environmentalism. They seek to operationalize the authority of religion to promote cultural (sometimes called religious or “sacred”) value, such as for wildlife and resource conservation. In order to accomplish such goals, these agents must, ironically, traffic in explicitly Islamic norms to an even greater degree than do Muslims themselves in naturalized religious settings like



Figure 2.1 Award-winning landscape of an eco-pesantren, Java, Indonesia. Photograph by the author.



Figure 2.2 Producing organic fertilizer at Pondok Pesantren Darul Fallah (eco-pesantren), long-established Islamic school and agricultural college, Ciampea, Bogor, Java, Indonesia. Photograph by the author.

traditional Islamic education, where confident “Muslim values” otherwise go without saying.

When intervening in doctrine to support new environmental institutions, Muslim agents and those seeking to influence them on their behalf are usually attempting to shape religious values for the environment. For example, an environmental key word like *sustainability* may be seen to gain an Islamic legitimacy and even praxis when a normative idea of giving Islamic charity, *sadekah*, is cast in the form of ecological doctrine. One of the most conceptually creative projects of this sort that I have seen was developed by leaders of the voluntary religious association Muhammadiyah. During the fieldwork period, 2012–2014, a number of theologians and organizational leaders had been working at the headquarters in Jogjakarta, the center of the organization since its inception, to develop the theory and practice of environmentalism. For example, they had systematized an official ecotheology for “the earth” (*al-ard*).

Muhammadiyah was also building a local project to impart Islamic “value” to refuse as a promotion of the meritorious environmental and religious action, recycling. The program equated recycling, giving back one’s trash, with an Islamic notion of “charity.” Sadekah is an idea that has seen much popular Muslim promotion in recent years, beginning with the preaching of the national religious celebrity Yousuf Mansour in the aughts.⁶⁰ Muhammadiyah’s program was under discussion when I was teaching a course on “Religion and Ecology” at Gadjah Mada University in Jogjakarta in 2011, and when I returned two years later it had been implemented under the official name Gerakan Shodaqoh Sampah (“Charitable Trash Movement”), and there was an active collection center in the nearby area of Bantul.⁶¹ While this program came from a local group of Muslim theologians and extended programmatic doctrine, at least as often, such programs are invented by non-Muslims; furthermore, these lines of Muslim and non-Muslim, religious and nonreligious, and prestige and patronage can easily blur.

When Muslim teachings are extracted by non-Muslims, however, in order to be subordinated to environmentalist programs, this represents value that is intentionally structured or scripted into local contexts according to institutional power and interest. One example of the enhancement of religious value in Indonesia for conservation from my fieldwork came in 2014, with international media attention, when a semiautonomous wing of the Majelis Ulama Indonesia (MUI, the Indonesian Council of Religious

Scholars) announced a widely publicized fatwa on wildlife trafficking. A fatwa is a nonbinding legal opinion, issued in response to a question; fatwas are as authoritative as the authority who issues it, and they do not carry enforcement.⁶² Originally, the hope had been that such a fatwa would address land grabs, rainforest destruction, and possibly relate to forest burning and haze smoke.⁶³ However, with new rules for deriving fatwas, the terms of the question set for Islamic “answering” (*istifta*) and subsequent policy direction were carefully honed by stakeholders, many non-Muslim, such as the primary sponsor, the WWF (with funding by various agencies including U.S. Department of Fish and Wildlife, whose logo appears on the official release). The emphasis on wildlife was in accord with the WWF’s objectives, and the hope that the optics of value would be maximized for the forest from the perspective of wildlife conservation. Protecting habitat for threatened species of mammals, like the tiger, became the bulk of the twenty-eight-page document, with one clause calling for review of new land acquisition contracts, as for palm oil concessions, appearing only on page 22 (calling on the government “to review permits issued to companies that cause harm to ecology, social, economic, cultural area objectives, and threatening endangered species from [i.e., with] extinction”).⁶⁴

The public rationalization of categories of religion and culture in societies like that of Indonesia also incorporates local traditions into Muslim environmentalisms, many with pre-Islamic roots along with those that validate religious systems outside the global imaginary of “Islam” (for example, the presence of local spirits).⁶⁵ The values of “local” tradition, whether indigenous or carrying a cultural label like “Javanese,” are promoted as such by the Muslim environmentalists with whom I spoke, many of these leading Muslim scholars in West and Central Java. Tree planting is an example from central Java, a local custom among Muslims, as with wedding celebrations, that has been popularly “environmentalized” by leaders. Muslim programs also do attempt to formally intervene in local tradition and local knowledge, which may be recognized as more or less “Islamic” according to normative standards.

In another recent case, highly significant from the perspective of the legal history of the Indonesian state (and the colonial period before it) along with cutting-edge Islamic environmental norms, *adat* (customary, indigenous, or “cultural” norms) has recently been recognized as a basis for land tenure and forest conservation by the state of Indonesia. This too saw

the support of transnational NGOs like the Rainforest Action Network (RAN), although Indonesia's WALHI (Wahana Lingkungan Hidup Indonesia, "Indonesian Forum for Environment") within the country was the primary advocate. Adat is included as one of the acceptable bases of Muslim jurisprudence in classical sources going back to Al-Shafi'i (d. 820). Adat law was the subject of an influential work by orientalist scholar and colonial official Snouk Hurgronje, during the period of the Dutch East Indies, and is a facet of the legal system of the Republic of Indonesia today. In the declaration of 2017, the Indonesian president Joko Widodo ordered the Ministry of Environment and Forestry to remove thirteen thousand hectares of customary land from the Industrial Pulpwood Plantation so that it could be returned to nine traditional communities, including the Tano Batak indigenous community in North Sumatra, Indonesia, through the mechanism of adat and on the basis of traditional land claims. This was celebrated as being the first time since the founding of the Republic of Indonesia that communities' customary land rights have been recognized by the Indonesian national government.⁶⁶

Development agencies have turned to religion and "culture" to have various forms of recognized value added to environmental programs. The theories of environmental ethicists, including Holmes Rolston III, are emblematic of this approach.⁶⁷ Rolston, for example, wished to "naturalize value" with respect both to the anthropocentric (meaning value for humans, usually instrumental or utilitarian) and the anthropogenic (that which is humanly constructed). In this way, Rolston claimed an intrinsic value for nature (which operates in parallel to a "rights" discourse inside and outside formal systems of state and international law, discussed further in chapter 4 in connection with notions of environmental personhood). The idea has been adopted instrumentally within environmental conservation, providing a productive interface of global capitalism, local systems, and Islam. While subject to a standard critique of developmentalism, there is here ideational overlap with respect to the idea of measured "value" in Muslim religious systems, in that ultimate justice is represented in the Qur'an in terms of the "weighing" and "accounting" of measurable moral quantities. Even the language of *halal* and *haram*, used in modern environmental religious rulings like fatwas, is inherently a value system, albeit one to be assessed by humans only in anticipation of God's final evaluation of all actions and events at the end of days.

International conservation efforts, however, often seek merely to create commercially recognized value for the wildlife and ecosystems that they protect and enroll Muslim religious economies in order to do so.⁶⁸ As a case example, in 2014–2015, I began a fieldwork project in the outer islands of the province of Maluku (“Moluccas”), around Ambon, Indonesia, on efforts in marine conservation to protect coral reefs. Many such projects were being envisioned in that area along the pattern of a successful ecotourism and deep-sea diving enterprise led by the Nature Conservancy in Raja Ampat, in a region near to Papua. Modeled on something like this, WWF was beginning a new initiative near Kataloka Island (on Koon Island), a conservatively Muslim area at some considerable distance from the provincial capital on the island of Ambon, three days’ boat ride away.⁶⁹ Following a custom (*adat*) that was in effect in the Dutch colonial period called *sasi*, which had in fact existed long before in indigenous conservation,⁷⁰ the NGO funded a mosque in Kataloka in order to secure, in exchange, an area into which they could bring recreational divers around Koon Island. These tourists would reside in local home-stays on the island, since there is not enough water on land in the area to support a hotel. Fees collected from the international divers would be managed by the local community, under the leadership of the village head (and leader of the religious community, *imam*), and, following *sasi* custom, “environmental” community assets are traditionally managed by a *kèwang* (resource guardian) in this manner. The money would “buy the *sasi*” to ensure that the coral reef area would remain undisturbed by the island’s residents.

In addition to building a mosque, WWF leaders with whom I met at the national headquarters in Jakarta as well as in the location of Ambon City, almost all of them non-Muslim (Christian), were interested in discovering and articulating Islamic ideas that could help to support the project, which was planned to be underway by 2017. Notably, the Malukan program was for coral reef protection, not issues directly affecting sustainable fisheries and fish-dependent livelihoods around Ambon. These were the concerns that I heard shared firsthand among members of local communities on Ambon, Haruku, and Seram Islands, regarding coastal mangrove forest restoration for spawning and depletion of deep water tuna stocks through licensed and unlicensed ventures.⁷¹ Out in the planned conservation area, there was nevertheless a nexus between what villagers’ sought (the WWF-built mosque, for example) and what the NGO was seeking. This is hardly a

story of any stark clash of values, although the area is notorious for tragic interreligious violence, even within the last decade. Rather, it offers another illustration of how values in conjunction are enhanced by intervention, patronage, partial translation, and potentially unintended outcomes.

This case of conservation is also an example of resources becoming drawn into a newly monetized economy, a new “land ethic” of value that places “nature,” marine ecosystems, squarely within a commercialized framework with respect to human use and nonuse. The example from Muslim Maluku also indicates how it is that what may appear on the surface to be “community-based” initiatives may be an effect of value-production effected at some stage by NGOs and others from the outside. Whereas, in the example of Muhammadiyya’s recycling program, such initiatives may be Muslim-driven, they nevertheless reinscribe religious value through environmental circulation. When such a process is commoditized or monetized, even through an allegedly autonomous system like Islamic finance, it will at some point inevitably become subject to the circulations of late market capitalism.⁷²

Viewing spiritual or material “value” to inhere in the environment, whether as an approach that is indigenous, Marxian, Islamic, neoliberal, a combination of these, or even something else entirely, leads to consideration of some of the often unspoken political issues surrounding global Islam and environmentalism. Geopolitical structures like globalization, inflected through Muslim experience, may be far more determinative than crafted pronouncements about the essentializing reinterpretation of Islamic scriptural norms as green. For example, it is an understatement to claim that the politics of petroleum have shaped Muslim-majority West Asia and other regions in Africa and Asia from where fossil fuel resources are extracted. According to the book by Timothy Mitchell, *Carbon Democracy*, fossil fuels like oil and coal have determined not only colonial and postcolonial national interests but the institutional form of global politics in the twentieth century and beyond, including systems of governance like “Western democracy” and allied authoritarianisms.⁷³

From this perspective, it is surprising how starkly recent has been the first appearance of the issue of fossil fuels in the academic discussion of Islam and the environment. This has not come through historical reflection on a region like the Middle East, but instead through activist voices and communication about climate change in concert with non-Muslim and nonreligious

agendas. For example, the “Islamic Declaration on Global Climate Change” includes unprecedented language for a “faith declaration” on the issue of greenhouse gas emissions. At its end, the document addresses different sectors of society (no longer circumscribed with religious affiliation like Islam, but according to generic institutional status as a “government,” “corporation,” and so forth), calling on corporations, for example, to

- shoulder the consequences of their profit-making activities and take a visibly more active role in reducing their carbon footprint and other forms of impact upon the natural environment;
- in order to mitigate the environmental impact of their activities, commit themselves to 100 percent renewable energy and/or a zero emissions strategy as early as possible and shift investments into renewable energy;
- change from the current business model, which is based on an unsustainable escalating economy, to adopt a circular economy that is wholly sustainable;
- pay more heed to social and ecological responsibilities, particularly to the extent that they extract and utilize scarce resources; and,
- assist in the divestment from the fossil fuel-driven economy and the scaling up of renewable energy and other ecological alternatives.⁷⁴

This statement stands in contrast to the remarkably apolitical tone of a standard interfaith environmental declaration. Another unusual English-language discussion of global energy in the context of Islam *and* the environment is found in the work of the American activist Ibrahim Abdul-Matin, titled *Green Deen*, which contrasts energy from “hell” (coal and other fossil fuels) with energy from “heaven” (wind, solar) in its chapter headings. This discussion of energy resources stops just short of bringing this issue together with the Islamic call to justice, here climate justice, for the sake of this world and the next. In all these expressions, environmentalist values, from education to “the market,” mobilize what is environment in shifting frames, instrumentalizing values from education to practice.

* * *

The discussion and examples given in this chapter represent Islamic teaching and practices as they are primarily construed for the sake of the environment, determined by environmentalist agendas largely established

outside Muslim-majority settings. These, for example, typically are shaped with respect to Islam by universalizing structures of pluralism like world religions. Through institutions like those of development and conservation, non-Muslims participate in the invention and promotion of normatively Islamic messages and seek to operationalize these “values” through local political power and patronage. Such interventionist manipulation of Islamic doctrine and practice in colonial and postcolonial eras is a widespread pattern that extends far beyond environmentalist ideologies. Consistently following the long-standing patterns that were validated by my own fieldwork in Southeast Asia, education is salient to these environmental systems for religious and nonreligious actors alike, representing a structural nexus of religion, Islam, and environment.

Recognizing how “development” shapes global Muslim environmentalisms may also shift academic analysis from a position of familiar postdevelopment critique and critical perspectives on the idea of world religions toward forward-looking theory for environmental humanities. Acknowledging the overlap between local and global, Muslim and non-Muslim, chapter 3 continues with reflections on the more constructive side of this dialectic, shifting away from critique to present other salient understandings of the environment. This draws on a millennium of Muslims’ Qur’anic ecology in terms that both originate from and also extend beyond a secular academic expression of environmental humanities; the latter has its own notions of pluralism and development, which were forged in colonial experiences of exploitation as well as conditions of late market capitalism. From a perspective of Islamic humanities, “the environment,” while a more recent concept coined in relation to specifically modern problems and concerns, can—just as in European Christian traditions—also be viewed through commitments Muslims have long held through Islamic traditions like cosmology, ethics, science, and art.

Consistent with cutting-edge theorizations in Islamic studies like that of Shahab Ahmed,⁷⁵ when the term *Islam* is no longer under the intellectual constraints of the English-language humanities, but is rather reflected meaningfully through variegated Qur’anic traditions, then Islamic humanities are freed from the burden of translation into Europe’s globally parochial idioms of postmedieval enlightenment. In fact, Islam’s contribution to European traditions, as in the history of science and philosophy, become all the more clear. This renders a picture of Islam *and* the environment that

complements, and at times may even contrast with, those of hegemonic post-Christian frameworks, such as world religions paradigms that seek to incorporate Islam. This is also a powerful confirmation of the ethical potential of environmental humanities to go beyond tendencies of prevailing paradigms for “diversity” and inclusion to better develop theory in areas such as environmental equity and justice. By this it is not implied that modern Muslim environmental commitments are any less ambiguous, or even arbitrary, than the post-1970s discourses of Eurocentric environmental humanities. As data in this chapter has shown, intertwined local, regional, and global dynamics defy essentialization, yet such connections are inevitably meaningful in any and all Muslim religious contexts. Just as with the enduring legacies of colonial structures affecting Muslims worldwide, the diverse hermeneutics of historical and textual traditions are also the flexible frameworks on which Muslims construct religious environmentalisms today. These traditions have environmental parameters in the form of the commitments they have established in the past and now in the present. These are also the shared patterns upon which religious Muslims will draw for future environmental apprehensions.

THREE

A Qur'anic Environment

Relating Creatures and Resources

RELIGIOUS READINGS OF the Qur'an form Muslim environmentalism, and with this it should go without saying that the Qur'anic text structures Muslims' thought and action only within the social worlds of various lived contexts. The Qur'an certainly is also not solely determinative of religious environmental norms; Islamic legal guidelines and situated ethics, scientific principles, and community practices all provide examples of ideas deployed by Muslims for environmental commitments and engagements that derive from authority other than the Qur'an. However, the Qur'an shapes how Muslims interact within human and nonhuman, and also secular and religious, worlds. Its traditions saturate global systems, starting with the education of young children in reading Qur'an (which is the basis of all Islamic education and required to some degree to carry out the fundamental obligations for all Muslim men and women, daily *salat*). The fact that only one-fifth of the world's Muslims today are native speakers of Arabic does not prevent Muslims from grasping its fundamental terms, themes, and images.¹

The Qur'an is also the common authoritative referent to which global Islamic systems ground themselves and interact across boundaries of difference. Islamic institutional authority is fluid, and the tradition is characterized by flexibility, but nevertheless coherent conversations have been occurring for a millennium in centers like Timbuktu, Cairo, Qum, and Melaka, not to mention Medina, and across wide geographic expanses like

overland trade routes across Africa, the Silk Road, and Indian Ocean maritime systems long before the circulations of print media and technologies of jet travel. This renders a basic overview of the Qur'an's own environmental themes a more fruitful place to start to theorize Muslims' religious environmentalisms from a humanistic perspective than does a recent notion from environmental humanities like the Anthropocene.

Standard treatments of Islam *and* the environment do rely heavily on Qur'anic verses, but usually without considering how such Qur'anic authority would be derived or applied—whether socially, historically, textually, ethically, or otherwise. This corresponds to tendencies both in the Eurocentric presentation of environment as well as Islam and world religions overall, such as those that would seek cognates in biblical material or romantic themes like sublime “nature.” With this, the material that is commonly excerpted as standard “environmental verses” of the Qur'an corresponds closely to notions of “environment” that originate outside Islamic tradition. This practice of excerpting of proof-texts usually seeks preselected “key words” from a predetermined system of reference, and does not begin with patterns in the text's own rhetorical presentation, or as it is well studied in tradition. As a result, many of the key environmental words are single Qur'anic instances, rather than terms that appear dozens, even hundreds of times repeated through the text, and all the more in Muslims' daily practices of reading and repetition.

It is not necessary to probe the commentarial tradition deeply in order to understand what actually is the basic content of the text including Arabic meanings. In addition, the exegesis used in madrasah education, such as *Tafsir al-Jalalayn*,² highlights such straightforward points of syntax and morphology. The primary interpretive lens here is just the organization of the Qur'an, such as by identifying themes based on relative emphasis of content found in it. This presentation of Qur'anic themes and their contextual meaning is much on the model of nonconfessional works by Toshihiko Izutsu or Fazlur Rahman, which have been standards in religious studies for half a century.³ Treatments of Islam *and* the environment rarely consult textual tradition even to this extent, such as when identifying a given term to be “environmental” without first considering what the context, *maqam*, of the verse might also indicate. Selection of terms for lists of “environmental verses” from the Qur'an, furthermore, are rarely guided or supplemented by hadith, reports of sayings and actions of the Prophet Muhammad, which

comprise the basis of much of Islamic law and practical ethics. Hadith supports a Muslim environmentalist perspective like that which I saw put in practice in firsthand field study, which resonates across the areas of Islamic theology, law and ethics, science, aesthetics, and activism in Indonesia and elsewhere.

This chapter opens with Qur'anic material commonly presented as the "environmental verses" of the Qur'an, such as might appear on top of a list of results of an English-language Internet search. Standard environmental key words like *stewardship* and *balance* usually resonate with corresponding content from other cited scripturalized world religions. In general, the Qur'an in this context is thus more associated with a bias to forward "sacred texts" to explain others' religion than with an understanding of the Qur'an's role in the context of the practice, performance, and daily life of Muslims.⁴ For any type of study of key word correspondences for an English-language treatment of Muslim environmentalism, such as here in environmental humanities (including religious studies), the next step is to recognize and contextualize them in Islamic sources, which means reading some Arabic, no matter what language systems one prefers for translation or communication.

This approach does rely on some hermeneutic apparatus, however analytical or intuitive this may be. Even bullet lists of environmental verses (as found on the World Wide Web) latently, and arbitrarily, pose unspecified terms of comparison by implication, such as with loose nature concepts that target Muslim religious material. Global Muslims and non-Muslims have only fairly recently adopted English-language nomenclature for *environment* in Islamic idioms. These projects are highly creative, and as such must also innovate new structures of authority to occupy the same Islamic space as does the commentarial tradition. The Internet successfully introduces new privileged, and homogenizing, circulations like these. Since the environment itself is such a fluid English-language concept, rarely defined in environmental studies unless circularly (the environment is the environmental and vice versa), an idea of environmental *commitments* cast as "environmentalism" is the basis for discussion here.

Relevant to environmental humanities first is to observe what concepts are now being identified as most significantly environmental across dynamic contexts and conversations, as in various presentations of "environmental verses." Disruption of the Qur'an's own hermeneutical tradition, such as

with the focus on the idea of “stewardship” (*khalifah/khilafah*) in two or three verses in the Qur'an while ignoring apocalyptic and prophetic tradition, which comprise one-fifth of its content, is a productive initial insight for environmental humanities. Based on conversations about Islam in religious studies that persist today, it bears repeating that this is not a question of the secular scholar judging authenticity of environmentalist assertions as good Islam or bad Islam. It actually represents the bolder step of allowing Muslim systems to generate central humanistic theory that does not remain marginalized only as Islamic studies.

Most of this chapter is occupied with basic description of the textual content that would underlie any such conversation as undertaken by those knowledgeable about Muslim Qur'anic study. There is a significant amount of Qur'anic content presented and described here on the assumption that, as would be expected in European-language humanities, much of this book's audience may have never before read through the meanings of the Qur'an in English-language interpretation (“in translation”) even once in entirety. Secondary-source material here cites only English-language scholarship (not Arabic, Turkish, Farsi, Urdu and Bangla, Malay, etc.) with an eye to supporting such newly engaged readers. The Qur'an's structure and style, as Muslims scholars attest, is exquisitely self-referential, recursive, and refracting, thus themes (such as those to which the text itself directs its readers) are best introduced in relation to the entire text's presentation as much as possible.

The latter part of the chapter presents systematic theological propositions, illustrated by the Qur'an's unique presentation, that are found in standard treatments of Muslim environmentalism, past and present. Emphasis is on Qur'anically based approaches, such as how traditional as well as modern religious thinkers construe “resources” as relational entities through foundational teachings. For example, the Qur'an holds that humans are always part of “creation” (defined in absolute contrast to the Creator as in Q. 7:172) and are ultimately judged according to this criterion; humanity thus does not, categorically, represent one side of any human-nature dichotomy. This is even as the Qur'an casts the entire natural world innately in a state of being *muslim*. Furthermore, while “the environment” is presented in terms of resources with benefit for humans and other beings, a starkly utilitarian view of nature is negated by the Qur'anic fact that “resources,” too—even inanimate ones—are also “creatures”

participating in the Creator-created relation. Coming with this is a theological and ethical proposition that is relevant throughout religious sciences: the environment, if it is taken to be most generally creation and the committed relations that it engenders in Muslim accounts, makes the conditions of Islam. This premise is the departure point for many contemporary environmentalist expressions, including modern legal thought that is to be considered in the chapter to follow.

Discussion in this chapter stays focused on the text to show how the Qur'an represents these themes through interactive moral frames that have ultimate horizons of accounting (*hisab*) in the world to come, a fundamental Qur'anic teaching that recurs across legal, ethical and philosophical, empirical and practical dimensions. This chapter works through these basic environmentalist ideas from the perspective of the Qur'an's own presentations. For example, the text continually emphasizes that the created world is filled with "signs" (*ayat*) of the relational nature of creation, in its divinely authored state, for which there is prescribed human response or action directed by the words of the Qur'an. The Qur'an's frequent invocation of natural signs also puts focus onto these created resources as being varied scientific elements in the biosphere that are subject to processes that are known as well as unknown. Time after time, the Qur'an presents this as evidence upon which humans are continually instructed to study and reflect. The Qur'an affirms the status of such natural phenomena no matter how big (entire "worlds") or small ("specks," "drops," "atoms") to be "creatures," irrespective of apparent sentience, animate nature, or instrumental utility for humans. The Qur'an typically directs such empirical ethical response with respect to recognizing the blessing of life-giving and life-nurturing resources (or their denial) in this world as in the afterlife. Hadith material speaks strongly in this regard as well, with "environment" often constructed with respect to practical management of resources in the state of being "creatures," such as domesticated animals and wildlife, water and vegetation.

Finally, considering closely Qur'anic rhetoric in a mode consistent with Muslim textual scholarship, there is a foundational tenet that must underlie any Qur'anic environmentalism from an Islamic religious perspective. Past and present approaches to Islam *and* the environment, including those of Muslims that reflect Anglo-environmentalism, fail to emphasize, and often fail even to acknowledge, the prominent eschatological dimensions of

the Qur'an's message. This is emphasized here for the sake of understanding Muslim environmentalisms as much as Islam. No longer to omit or to overlook these teachings of the Qur'an can render Qur'anic justice as consequential accounting and judgment through the lens of distinctly Muslim conceptions of "environmental justice." The apocalyptic dimension that is neglected in standard treatments of Islam *and* the environment nevertheless establishes essential relations for seen and unseen environmental phenomena with respect to creatures and resources that are applied through systematic disciplines like Islamic theology and law. Chapters to follow on law, science, expression, and ritual show diverse religious modes that all connect resources and creatures to accountability, "signs" to science, as well as environment to justice against these ultimate horizons. This renders a theory and practice that may shift across scales of environmental space and time in much the way the theory of the Anthropocene attempts to do in present-day environmental humanities. However, this is a clear ethics that the Qur'an's rhetorical structure and style connects across a phenomenal scale of experience and ontology. Religiously, this is also precisely the kind of recognition that underlies the tradition of scholarship on the text's "inimitable" nature (*i'jaz*) in eloquent form and comprehensive content, and the Qur'an's expression is now also where study begins.

Key Word Approach and Standard "Environmental Verses"

Popular treatments of the theme of Islam *and* the environment in English typically list key passages of scripture (Qur'an and sometimes hadith) as "environmental verses," such as excerpts on khilafah, "stewardship." These verse citations then are left to stand for themselves as an environmentalism. This kind of translation, a project enabled by expectations of the autonomous authority of uninterpreted scripture, represents an interpretive strategy that is characteristic of many types of hypermodern "fundamentalisms," including those with progressive orientations. In both the history and the present of Islamic religious sciences like exegesis, single-instance terms or those that occur infrequently like *al-mizan* ("balance") may be highly productive.⁵ Before their adoption as environmental, terms meaning "steward," "trust," and "balance" have been used for multiple

conversations in contemporary Islamic religious thought from topics ranging from gender to politics.

Their infrequent appearance in the text means precisely that such expressions are especially open to ideational interpretation. These terms are also particularly amenable to the hermeneutic style typical of modern discourses of Islam (Muslim and non-Muslim alike), which is to quote a single verse as authority on a totalizing theme, likely with respect to a nontraditional topic. This listing of citations in this mode is what is frequently essentialized as Islam *and* the environment, or Islamic environmentalism, across Muslim and non-Muslim domains, including much found posted on the Internet.

A representative example of a scholarly key word approach comes from one of the more prolific voices in Islam and the environment, the British author and activist Fazlun Khaled. In one survey on the topic, titled "Islamic Basis for Environmental Protection," Khaled writes about the "Ethical Foundations of the Qur'an," claiming that the Qur'an is the "primary element" of *shari'ah* (defined here as something like ethical guidelines of Islam that set the limits within which to live). He presents four "basic principles" in the form of Qur'anic key words that, he writes, "may collectively be seen as providing the basis for Islamic conservation practice." These are, quoting his words:

Tawhid, which embodies the principle of unity of the Creator and His creation and is the basis of the holistic approach which is intrinsically Islamic;

Fitra, which imparts an understanding of the creation principle and locates the human species firmly in it;

Mizan, which recognizes the principle that every aspect of creation holds together because it is in a state of balance;

Khalifa [a variant of *Khilafah*], which identifies the responsibility principle and the role of the human in the grand pattern of creation.⁶

These are then illustrated by Qur'anic verses. In this treatment, Islam *and* the environment is introduced by way of a list of key words on the authority of scriptural citation. It appears without a clear accompanying hermeneutic or references to standard Islamic religious sciences in which the Qur'an is foundational.

Not mentioned in Khaled's treatment is also that several of these terms appear only a few times in the text. Specifically, *fitrah* (humanity's "original

nature”) appears once, in Q. 30:30, with a handful of additional verbal mentions of God’s own “origination” of creation; *mizan* (“balance”) appears just sixteen times, and almost always in terms of the “scales” of good and bad deeds weighed at judgment (and not as a principle of cosmic harmony); and *khalifah* is in nominal form in the Qur’an a mere nine times, with a few more verbal instances. To further illustrate the point that the selection is arbitrary, the list of “principles” makes no reference to what are, in contrast, many hundreds of mentions of *al-ard*, “the earth,” in the Qur’an as a physical, spatial, and moral location—how to “walk upon” it, how not to “corrupt” it, how God “revives” it, or contrasting “heavens” and earth.

Most modern approaches of Islam and the environment, such as in an English-language interfaith context, map “the environment” onto an alternative and limited array of decontextualized scriptural terms, with little consideration for the emphasis they receive in the text of the Qur’an itself. Perhaps the infrequent use of the terms selected is actually helpful in this regard, since an acknowledgment of textual embeddedness that is any denser would require attention to the tradition of Muslim readings of the Qur’an that are liable to decenter mainstream environmentalist norms.

Some Muslim thinkers have attempted to systematize ecotheology along the lines of such key words, and especially with *al-ard*, or “the earth.” However, the most common choice for the modern term *environment* overall is an Arabic expression that does not appear frequently in the Qur’an, *al-bi’ah* (as in the title of Yusuf Qaradawi’s work, where it translates as “environmental [Islamic] jurisprudence,” or in the program sponsored by the World Bank to develop “Islamic law of the environment,” releasing a report by the same title).

The term *al-bi’ah* has connotations of “habitation,” or “place of settlement,” and appears a few times in the Qur’an with respect to God “lodging” a community in a place (such as the Israelites and the Exodus, the Prophet Joseph being “established in the land,” and the righteous granted a “dwelling” in Paradise). Yusuf Qaradawi, a leading Muslim intellectual of the late twentieth century, known throughout the Arabic-speaking world but originally from Egypt, defines this term rigorously in this sense, in the Arabic opening of his lengthy modern work on “Environmental Perspectives in Islamic Law,” as being “the area in which humans live” or visit or travel. In the next line, following standard environmental sciences, he distinguishes between the two major categories of physical, abiotic (“inanimate,” *al-jamid*)

environment, which is the creation of God that humans utilize (*san'a*) as well as environments of the earth and atmosphere, and biotic ("living," *al-hayya*) environments of "humans, animals and plants."⁷

Beginning with this orientation, there are practically countless verses of the Qur'an that could be "about the environment," including any and all of the many that mention conditions in the natural world or abstract ideas like "knowledge" or "oppression." There are hundreds that are explicitly about justice, responsibility, and limits, for example, which are also environmental themes from a humanistic perspective. In the era called the Anthropocene, defined here as the present period in which human activity dominates planetary conditions, all content about humans' history affecting this world and the next, whether the destruction of past communities through "natural" disasters or that which is to come, could also be said to be about the environment. Finally, from the established religious perspective that "the environment" creates the conditions of Islam, it would not be incorrect to approach all the Qur'an's teaching as being environmental in nature.

However, since the 1970s when the environment emerged as a concept along with environmental studies as a field, there have been certain verses in the Qur'an that have been favorites for widespread citation as "environmental verses" in English. (Qaradawi cites these too in his work, *Fiqh al-Bi'ah*.) Sometimes treatments of Islam and the environment consist only of a string of such citations, corresponding in genre to searchable listings of "Sufi verses" or the Qur'an's "verses on women." To cite these passages, as by affirming them to be cognate to biblical ideas (for example, stewardship) or equivalent to other modern environmentalist notions like sustainability, may sometimes represent a total treatment of the topic, Islam and the environment.⁸ When consideration of Islam and the environment is comprised of such verses of the Qur'an in Muslim-majority settings, it may also include reports (hadith) about the exemplary prophetic model, or the *sunnah* of the Prophet Muhammad as well.

Any contemporary presentation of Islam and the environment will likely draw on some of the following popular verses, grouped here according to themes as developed by the present author. To begin, there are verses about humanity and responsibility and related limits. These appear to apply in particular to humans as one subclass of God's creatures, not as a general responsibility incumbent on all creation to Him, such as to worship. The

most well-known of these passages, representing the basis of most treatments of Islamic environmental ethics, are nine verses on the designation of humanity as being God's vicegerent, or a *khalifah*. This is a term that can also be translated as the political title of caliph, but here has the connotation of "following" or being a designated "successor." Five out of these nine Qur'anic verses specifically mention being a *khalifah* of al-ard, "the earth," as in the repeated expression translated as, "[God] appointed you successors on the earth." The term appears in connection to the Prophet Noah (Nuh) and Prophet David (Dawud) prominently.

The biblical verses in Genesis establishing a "dominion" for humanity (which Qur'anic material on *khalifah* supplements in an "interfaith" context) are an unambiguous presentation of bestowal, whereas the Qur'an presents humanity's "stewardship" as an ambivalent role and responsibility, as in this verse: "Behold, the Lord said to the angels: 'I will create a vicegerent [*khalifah*] on earth.' They said, 'Will you put in it one who will cause corruption [*yufsidu*, verbal form of *fasad*] in it and shed blood?—While we celebrate Your praises and glorify Your holiness [*wanuqaddisu*]?'—He [God] said, 'I know what you know not'" (Q. 2:30).

The angels' retort to God is attention grabbing: obedient angels do not question their Lord, except for this instance (in a statement, ironically, affirming their very obedience). Also, they are sure that humanity will fail the test and "corrupt the earth." The Qur'an calls the designation of *khalifah* a "test" elsewhere, as in the verse that ends the Qur'an's chapter 6: "And it is He Who made you successors of the earth (*khala'if al-ard*), and raised some of you above the others in rank, so as to test you (*liyabluakum*) regarding what He has given you. Your Lord is indeed swift in recompense, and He is indeed All-Forgiving (*Ghafur*), Merciful (*Rahim*)" (Q. 6:165). Elsewhere in tradition, the idea of environmental *khalifah* (as in a "green earth") is supported by what is considered sound hadith: "The earth is green and beautiful and Allah has appointed you, his stewards, over it."

Also unlike the presentation in the Hebrew Bible's Genesis, however, the Qur'anic idea of "dominion" (*mulk*, a term that appears frequently and is related to "kingship"), is said to be God's. It is never bestowed on humanity, as the Qur'an emphasizes in more than a dozen instances, and even as a repeated phrase in surah 5 and surah 57 with an expression that means, "To God belongs the kingdom (*mulk*) of the heavens and the earth"; and, in sura 4, a phrase meaning, "To God belongs all that is in the heavens and in the

earth" (which expresses the same idea, but without the exact word *mulk*) appears six times within fifty consecutive verses (126–71).

Related to its treatment of environmental "stewardship," both in Qur'anic themes and ambivalence expressed further in the text, there is also the scriptural notion of the "trust" (*al-amanah*), some sort of responsibility that the Qur'an shows humanity voluntarily to have taken on. This is in the title of the book edited by Richard C. Foltz, Frederick M. Denny, and Azizan Baharuddin, *Islam and Ecology: A Bestowed Trust*. In Muslim theology *al-amanah* ("the trust") is a highly productive modern concept, used for many contemporary theological ideas, precisely because its meaning is openly multivalent in the Arabic Qur'an. The semantic root of *amana*, in the sense of a "trust placed," comes up a handful of times in the Qur'an and appears only once in the unspecified or universal sense, which is exactly the "environmental" verse that is so often quoted (Q. 33:72). Usually in the Qur'an, the word means the trusts (or "covenants") that encumber a specified person. The verbal root of this noun, also meaning "trust," carries connotations of safety and feeling secure. In a derived form, the same root produces the Qur'anic verb "to believe" and the related nouns "belief" (*iman*) and "believer" (*mu'min*), which appear many hundreds of times in the text. Needless to say, these terms and related verses are foundational to Islamic theology and ethics of all types.

The *locus classicus* of the "trust" as it is used "environmentally" is the following single verse: "We did indeed offer the trust [*al-amanah*] to the heavens and the earth and the mountains. But they refused to undertake it, being afraid thereof, but humanity undertook it. They were indeed unjust and foolish" (Q. 33:72). Just as in citations above about khilafah, this verse of the Qur'an implies a question as to whether humanity is able to care for the God's creation—and it states positively that humans are "foolish" even to think that they ever could. Usually such nuanced reflections are not highlighted, however, in treatments of the Qur'an's environmental verses, in which the trust is conveyed as a straightforward variant of stewardship in the biblical register, implied to afford to humans God's own unique "dominion" to His creation.

The Qur'an, however, expresses creation's own ambivalence about humans taking on *al-amanah* with their innate foolishness, and when mountains thought this was too much to uphold (Q. 33:72). And even angels, who

practically never talk back to God, question Him disparagingly in Q. 2:30–31 about the decision to afford humanity the imperative of responsibility not to “corrupt” the earth. Repeatedly, the Qur’an evidences the nature of people to be forgetful, wasteful, complacent, ungrateful, hypocritical, and “corrupt,” even in the face of the presentation of the consequences of these dispositions. This applies also to apocalyptic scenarios in which humans and *jinn* in the present come in confrontation with future generations, shouting to “sort out” accountability across the altered substantive landscape of the life to come.

There are a few other key terms in the Qur’an that are often taken to be universal environmental principles and thus to comprise a basis of Islamic environmental ethics in an interfaith context. For example, it is rare to find any treatment of Islam *and* the environment that does not invoke *al-mizan*, “the balance,” and its single mention in the surah (chapter) of the Qur’an known as *Al-Rahman*: “And the firmament He [God] raised high, and He set up the balance [*mizan*], in order that you would not transgress [due] balance. So establish weight with justice, and do not fall short in the balance” (Q. 55:7–9). The verse presents *mizan* as a “balance” that humans might transgress. Both terms, *al-mizan* and *al-amanah*, are significant in pluralistic context, while nevertheless they do not appear very often in the Qur’an, and this is a point missed by those who are not accustomed to reading this text in its entirety.

While humanity has taken on particular responsibility to care for God’s creation on earth, the Qur’an emphasizes that humans must accept relational limits for the sake of God. In fact, it states categorically the imperative to maintain explicit “limits (*hudud*) set by God,” such as that expressed in the command not to “corrupt the earth.” Commonly cited verses of this type in the Qur’an include those that express clearly the divine command not to sacrifice a “she-camel,” relayed to the community of the Prophet Salih in the book’s account of the sacred past. This command was disobeyed by his people, called Thamud, according to the story, which the Qur’an recounts more than once. The consequence of Thamud’s disobedience is one of the many “punishment narratives” of the Qur’an, which in themselves provide a great depth of material for contemplating “natural” disaster in the environment as the consequential effect of human actions transgressing limits.

The example of the Prophet Salih and the “she-camel” is usually brought up as a part of a discussion of Islam and the environment with respect to its subfield of Islam and animals.⁹ Despite the relatively frequent mention of the term *hudud* in the Qur'an (fourteen times, as in the repeated phrase, “these are God's bounds,” with half of the total mentions appearing in the second chapter, Surat al-Baqarah), environmental verses tend to avoid the idea of *hudud*, except to cite verses with environmental terms like the *camel* (which the Prophet Salih's people are commanded not to harm) or the expressed limit to maintain “the earth” free of corruption.

Presentations of Islam and the environment by both Muslims and non-Muslims feature other popular verses that instruct humanity in regard to limits, such as those on the consumption of resources. One that is often cited in English-language sources figuratively instructs humanity to “walk softy (or humbly) on the earth.” In context, its English-language meaning in the Qur'an reads as follows: “And the servants of the Compassionate [*Al-Rahman*, God] are those who walk on the earth in humility [gently], and when the ignorant address them, they say, “Peace [*Salam*]!” (Q. 25:63).

Muslim advocates of permaculture and organic farming, a subset of Muslim environmentalists, similarly find new meanings in the notion of *tayyibat*, the notion of the “goodness” of what is provided, which they interpret not only as *halal* (licit) but as a command to sustainability. They often cite the following: “O you who believe. Eat of the good things [*tayyibat*] that We have provided for you, and be grateful to Allah, if it is Him that you worship” (Q. 2:172). Contemporary environmentalists quoting from the Qur'an also commonly make reference to verses criticizing overconsumption and being “wasteful.” These are backed up in tradition by hadith, as, for example, those on water use, such as those familiar even to young children that would restrict the amount of water for ablutions (*wudu*), even if water is otherwise in abundant supply. Since there are no Christian-biblical counterparts to this material, which has implications in dietary and ritual law, the verses tend not to be as prominent in interfaith contexts.

Modern Muslim environmental thinkers have also sought in the Qur'an its themes that appear to relate to notions of consumption and sustainability more generally, such as the following:

And eat and drink, but not to excess, for Allah does not love the wasteful [*al-musrifin*].

(Q. 7:31)

Indeed, the wasteful [*al-mubadhdhirin*] are the brothers of the devils, and Satan has ever been ungrateful to his Lord.

(Q. 17:27)

Terms meaning excessive, unnecessary use (or “waste”) are commonly translated into an environmentalist frame of sustainability, meaning something like “overconsumption.” (The clear and frequent textual pairing of this with a Qur’anic relational response of “thankfulness” to God is usually not highlighted, however.) The context of the second verse (Q. 17:27), with respect to the verse that precedes it (which is, to paraphrase here, to give rightfully and generously to one’s servants and the poor [*miskin*] and not to “waste wastefully” [*wala tubdhdhir tabdhiran*]) as well as the verses that follow, seems to have a more specific meaning of dispensing earned wealth or money fairly and equitably. In this, “squandering” is one extreme to avoid, as is giving out too much at the other extreme (“lest you be reduced to poverty,” Q. 17:29). Be this as it may, it is still key words like *stewardship* and *balance* that remain more familiar representations of the standard English-language listing of the Qur’an’s environmental verses.

Among the verses that are the most widespread in Muslim-majority religious settings for discussion of environmentalism, such as in non-English-language contexts and especially in connection to law and ethics, are the Qur’an’s many exhortations not to cause “corruption” (*fasad*).¹⁰ There are two verbal forms of this Arabic root that appear in the Qur’an, one more intensified than the other, and with both verbs conveying related nominal forms. All of these account for about fifty total instances in the Qur’an, almost always as a prohibition against “destruction,” “degradation,” or “corruption,” expressly as *fasad*. What follows are two examples:

Do not cause corruption on the earth [*wa la tufsidu fi’l-ard*] after it has been set in order [*ba’d islahiha*]; this is better for you, if you are believers.

(Q. 7:85)

And, this is the end of another verse, the words of the Prophet Shu'ayb admonishing his people.

But seek, thanks to what Allah gave you, the Hereafter, and do not forget your portion here below. Be charitable, as Allah has been charitable to you, and do not seek corruption in the land [*wa la tabghi al-fasad fi'l-ard*]; for Allah does not like the seekers of corruption [*al-mufsidin*].

(Q. 28:77)

In context, the first instance (Q. 7:85) is words of the people of the Prophet Musa (Moses) admonishing Karun (Korah). Both verses appear in the context of “fulfilling the measure and the weight” (Q. 7:85), not “forgetting your portion” (Q. 28:77), respectively. Corruption (*fasad*) in these textual instances is generally understood by the Qur'an's readers to be moral corruption, although commentators like Al-Tabari (d. 923) have indicated other meanings. In most instances of *fasad* in the Qur'an, the word for “earth” (*al-ard*) appears in the same phrase.¹¹ These instances are specific commandments to specific persons or people. Typically in the Qur'an's verses containing *fasad*, and when the term appears in conjunction with the appearance of the word *al-ard*, it is the latter key word that likely triggers it initially as an “environmental verse” on the part of English-speaking compilers.

There are instances in which the addressee of the command not to make *fasad* is general and not specified as a historical person or community. An example is Q. 7:56, which precedes the first textual instance cited earlier from the Qur'an's chapter 7 (this is a chapter containing many lengthy “punishment stories” for corruption). This verse also identifies *fasad* as going against the natural order of the earth. It reads: “Do not do cause corruption on the earth [*wa la tufsidu fi'l-ard*] after it has been set in order [*ba'd islahiha*],” with the verse continuing, “Call on Him [*wad'uhu*] with fear and hope.”¹² The next verse recounts natural “signs” of God in creation: wind, clouds, water, fruit, and “revival of the dead,” as in the land coming to life after rain, and also implying resurrection on Judgment Day. In the Qur'an's characteristically shifting rhetorical style, verse 7:58 next follows this with a parable of the “good land” (*al-balad al-tayyib*): “The good land [*al-balad al-tayyib*] produces vegetation by the will of its Lord; but that which has gone bad will not produce vegetation except with difficulty. Thus We [God] make plain revelations [*ayat*] to a people who give thanks [*liqaumin yashkurun*].”

Then the Qur'an immediately begins a series of stories of previous prophets, Noah to Moses, whose people, like those of Shu'ayb (Q. 7:85) disobeyed the clear commandment not to spread corruption on the land.

Many key environmental terms of the Qur'an are translated from an ambiguous original meaning into a moralized environmental framework. In contrast, *fasad* can connote nothing other than a normative judgment from the start, as in "degradation," "destruction," or "corruption." It is also a legal idea as well as an ethical principle, and as such *fasad* represents one of the specified boundary-transgressive (*hudud*) crimes for which the Qur'an prescribes unenforced punishment (Q. 5:33). There is very little positive law in the Qur'an overall; if norms draw on a textual source, they are usually based on hadith. Traditionally, these exceptional acts mentioned in the Qur'an are stealing (sometimes "highway robbery" is included as a separate category), illicit sex, and some instances of slander; drinking alcohol is usually also included, but is a special case in the Qur'an, and one for which there is no punishment indicated. Other offenses are added to these by some jurists, and there has been little attempt at enforcement on the part of the state before the European-colonial era. It is on this legal-textual basis that some religious scholars have ruled environmental degradation (as *fasad*) categorically forbidden, or *haram*, and it is a common reasoning for contemporary environmental fatwas.

Besides the modern term *bi'ah*, expressions that are commonly used for environment in Modern Standard Arabic often convey a sense of a "landscape," such as *muhit* ("surroundings," like the "ocean" in the Qur'an) and *wasat* ("expanse"), but these appear only in a few instances in the Qur'an. By far, the word most frequently found in Qur'an of these is the Arabic term for earth, *al-ard*. Muslim ecotheologians often use this key word from the Qur'an, which occurs over four hundred fifty times in the text (the total verses of the Qur'an, recall, number somewhat over six thousand). These include the references not to "corrupt the earth," since the term for *earth* commonly appears in conjunction with *fasad*. While not as often developed as a theme in contexts of "interfaith dialogue," it nevertheless does translate readily to the English-language environmentalist expressions like "Earth Charter," "earth ethics," "Mother Earth," "spaceship Earth" (after the famous photograph, NASA's *Earthrise*). Some Muslim theologians have attempted to construct an original and systematic ecotheology based on this term, not because of the popularity of the English-language cognate but because it is

so robust in Qur'anic discourse; an example comes from Muhammadiyah in Jogjakarta, Indonesia, the same group that promoted "charity" recycling.¹³

When "environmental verses" are sought from the Qur'an for popular presentation, they often focus on a particular key word like *khilafah*, *amanah*, *mizan*, *fasad*, or *al-ard*. In English-language settings, the frequency of occurrence or emphasis in the Qur'an does not seem to be a factor, and such context is likely of little interest to those who are not concerned with the complete text. If relevance to the Qur'an's "major themes" were more significant to this hermeneutical project as an integral part of environmental humanities, instead of producing scriptural cognates or identifying key words, it could be that a robust concept like *fasad* might be selected as an "environmental" principle, rather than a more rare term such as *balance*.

Frequent Qur'anic expression that would highlight social and environmental justice is coming to be developed in modern Muslim formulations. For example, "oppression" (*dhulm*), is extremely common in the Qur'an, appearing about three hundred times in its nominal and verbal variants, and is a powerful expression of justice, environmental and otherwise. Moreover, the term *jihad*, once popular in postcolonial modernist social rhetoric, is still used for environmental effort in Muslim settings; however, its meanings, invented since the mid-twentieth century as a concept of struggle against "non-Islam" (whether directed to non-Muslims or to other Muslims), make it less appealing for an environmental connotation, compounded by reactionary orientalism. The Quranic material on "standing for justice," as in the verses "stand up for God as witnesses to justice" (Q. 5:8) and "stand up for justice as witnesses to God" (Q. 4:135) are significant in terms of present trends in the environmental humanities.¹⁴

A straightforward reading of the text itself, without index or lexicon, identifies environmental content like this directly, compounded by the sort of pattern-matching attention to structure and style that typifies the traditional study of the Qur'an's rhetoric (*balaghah*). A typical Qur'anic statement on deluded greed, materialism, and poor relationships with others, for example, including a vivid description of their ultimate consequences, are the meanings of the short chapter, 104 Al-Humazah. The key word in Arabic (*humazah*) sounds much like the word to which it is apposite in the first *ayah* (verse), *lumazah*, and commentators have noted that each term carries connotations of both slandering and calamity associated with the Qur'an's phrase "eating the flesh of others" (cf. Q. 49:12). Al-Humazah reads:

1. Woe to every slandering backbiter [*humazah lumazah*]
2. Who amasses wealth and tallies it
3. Supposing his wealth makes him immortal.
4. No! He shall surely be cast in the crushing Fire [*al-hutamah*].
5. And what shall explain to you, "the crushing Fire?"
6. The Fire of God, ignited
7. Which engulfs hearts [*af'idah*].
8. Truly it encloses upon them
9. In pillars outstretched.

The structure in which the Qur'an introduces an idea (*al-hutamah*), then "explains itself" through a rhetorical question, is typical of shorter suras in the Qur'an, found at the end of the book. These reflect a strongly apocalyptic attitude, said to have been revealed in the period during which the Qur'an was first believed to have been revealed when the Prophet Muhammad was in Mecca.

Emerging environmentalist approaches draw on core ideas in Islamic faith and practice and display the same creativity as Islam *and* the environment in their selection. In his handbook on Islam and the environment, *Green Deen*, for example, Ibrahim Abdul-Matin starts with a survey of key words, but then moves on to a praxis and cosmology grounded in Muslims' lifeworlds, such as with his book's main theme, based on hadith, "The Earth Is a Mosque." In another example, a contemporary scholar of Qur'an and lecturer in Arabic in North America, when discussing environmental ethics in the Qur'an "beyond key words" once remarked that *kufr* (unbelief) is a key concept for Muslim environmental ethics in her view, since Qur'anic *kufr* means to willingly cover up what one knows to be true. For an example, she suggested, continuing to eat meat when it is already clear that it is harmful from an environmental standpoint is a case of "covering" or denial of the truth. As will be illustrated in chapter 6, in fieldwork in Indonesia I observed a widespread pattern in which environmental leaders have been similarly developing other ideas that express the first two names of God, al-Rahman (the Merciful) and al-Rahim (the Mercy-giving), featured in many hadith. This represents a prominent lived environmental teaching and practice across Muslim Southeast Asia, informed by traditions of piety that are shared worldwide.

Qur'anic Themes of Resources as "Creatures":
Earth, Water, and Trees

The environment as foundationally expressed in terms of resources is standard in Islamic tradition, reflecting the ethos of much of the material now recognized as "environmental" in Qur'an and hadith. The consequential theology of accounting that connects such phenomena in this world to the next, such as with the Qur'an's expression of ontologies of "creatures," includes more than the human and even sentience. In addition, the Qur'an emphasizes the environment as life-sustaining resources that are also signs. Although this is typically not the kind of material first to appear in search results on Islam and the environment, its preponderance in tradition means that Muslims would turn to these orientations when there is a question of "the environment" in real-world terms for which Qur'anic guidance is sought. While phenomena like water, plants, or even "the earth" have utility, in terms of Qur'anic rhetoric their instrumentality or use-value is secondary to their principal environmental (ontological) constitution. As evidenced by the material that will follow in the course of this discussion, environmental significance continually comes from these resources being both signs and creatures.

Resources defined in terms of "life" (giving life, sustaining life, and so forth) are a fundamental expression in the Qur'an. These are foundational to a Qur'anic environmental conception. Such resources constructed as the landscape, the very space humanity and other creatures need to survive, is a core idea of environment supported by Qur'an and developed in classical sources. In his book *The Environmental Dimensions of Islam*, scholar Mawil Izzi Dien opens up his own discussion of "the concept of the environment in the Qur'an" with the ideas of *ma'ayish* and *masakin*, which refer to "a place where food and life exist" (the root of the first word means "life") and a place of stillness (the root of the second term) and habitation, respectively.¹⁵ He provides the following scriptural support: "It is We [Allah] who have placed you with authority on earth [*al-ard*], and provided you therein with means for the fulfillment of your life [*ma'ayish*]. Little you give thanks!" (Q. 7:10). The Qur'an elsewhere describes the biosphere similarly as *dhalul* (manageable) and also *bisat* (extended, expansive).¹⁶

Mentioned already in this regard is the connotation of the Arabic word for "earth," *al-ard*. It is the substance of creation, the place of origination and return, as in Q. 20:55, "From [it] did We create you, and unto it shall We

return you, and from it We shall bring you out again.” Izzi Dien writes that there are other terms to describe earth, which, according to him, emphasize “its value and importance as humanity’s only refuge.” For example, he notes, the Qur’an sometimes uses the same root as that for “cradle” (*mahd*) and for “settling down” (*qarar*). Izzi Dien also makes a distinction between God’s acts of “creating” (*khalaqa*) and “making” (*ja’ala*), commenting that in the Qur’an much in the phenomenal world is said to be “made” from something else, which seems to be a paradigmatic divine act of resource use.¹⁷

In his book *The Environmental Dimensions of Islam*, Izzi Dien expands on this to propose that the notion of environment in Islamic tradition might be viewed to be like that found in the following explanation of Hanbali jurist Ibn Qayyim Al-Jawziyya (d. 1310), a follower of Ibn Taymiyya. Al-Jawziyya develops the Qur’anic idea of “the earth” as a collection of biodiverse habitats in his work *Miftah Dar al-Sa’ada*, writing:

The earth was spread out and made large enough to give space for habitations, *masakin*, of humans and animals that includes cultivatable land, pasture land, orchards, and vegetable gardens. If someone asked what was the wisdom of making empty desert and barren land [points of categorical concern of Islamic environmental law], he should be made aware that it contains the environments, *ma’ayish*, for a number of beasts and animals that cannot be counted save by God. Their livelihood depends on this land, in it they run, and they live there in homes and cities like humans. In it there is the ample space [*majal*] they need, and where they can spend their summers and winters.¹⁸

Continuing in this vein, according to Izzi Dien, Al-Jawziyya explains that the notion of “environment” is further defined now in gendered terms by the quality of ample provision of resources within the system of connected habitats: “The wisdom of God made the earth like a mother that carries inside its womb different kinds of children. It acts for them as a container, *kifatah*, that supports the living and hides the dead.¹⁹ . . . Observe the great wisdom of God who has made plenty of what His creatures need. The more they need a thing, the more was made available by God. . . . The best examples are the four basic elements, *al-usul al-arba’a* [dust, water, fire, and air].”²⁰

At this point, and consistent with fields of natural history and sciences that Muslims first developed from Greek paradigms over a millennium ago, Al-Jawziyya discusses each of these elements within the framework of

environment (*ma'ayish*) as a place to live and thrive. Each is depicted in terms of being a kind of a natural resource in turn, with fire being somewhat exceptional in that it is a discovered (and not readily apparent or available) element that provides utility, as well as a potential danger, to humanity.

Resources are provided to all creatures, and specifically for humans to use and to share, and in that are signs (*ayat*), as the Qur'an continually points out to its readers. This framework highlights the utility of material resources and their function as signs. The Qur'anic environmental message in this regard is more than avoiding exploitation and exceeds "sustainable" or responsible use on the part of humans. Resources, even when not allegorized (as in, cases of *real* trees and forests that can be planted, cut, and burned), also point to sophisticated and nonanthropocentric environmental principles because of their dual existence as "creatures" with whom humans have relations. This is presented in richly emotive language. Creations like livestock for example are presented in the Qur'an not only as instruments to satisfy human physical needs but also for more intangible benefit such as to experience feelings of happiness or pride (such as with Q. 16:6, to which we will return). The earth is not just a landscape to inhabit or to traverse and which sustains life, but provides unseen "tent pegs" (*rawasi*) to meet a need for stability, which humans take for granted or of which they are not aware. Such subtlety in the function of signs, including affect and sentiment, relates also to the awareness of how these "resources," being creatures themselves, themselves have relations too with Allah.

Besides water, one resource treated in detail in the Qur'an, and especially in hadith material, is trees. There is a great deal in the corpus of hadith on trees that is seldom included as part of what are now nearly canonical environmental verses in English. Nevertheless, and based also on data from years of field-based research in Indonesia, these are also probably the statements that Muslims have known and cited far more frequently with respect to environmental resources. Furthermore, as will also be discussed in chapter 6, they establish a clear basis for an Islamically based practical theology of environmentalism today.

Here trees illustrate the designation of environment as both "creatures" and "resources." In the Qur'an, trees, like all creation, are beings who worship Allah, as given in the following verse from the well-known chapter Al-Rahman, "And the shrubs (or, stars) and trees bow down (in worship, *yasjudan*)" (Q. 55:6). There is also much in the *sunnah* (model of the Prophet

Muhammad, conveyed by hadith) that is about trees in their aspect as resources, such as a prohibition on cutting down trees in times of war. There are many hadith from canonical collections about the obedience of trees, especially to the Prophet, such as coming to him when believers are summoned (then moving back), even easing his way. Trees are not just to be utilized or appreciated emotionally as “resources,” but are to be appreciated relationally by humans as having their own feelings, too, as creatures (*makhluq*), as in the example given in chapter 6, the date palm tree that loved the Prophet.

The conservation and preservation of this resource is a meritorious action, and the planting of trees is an act explicitly rewarded by God according to prominent material in Islamic tradition. Just as providing water to others is a meritorious action, to support forestation is also a rewarded act. A hadith that I often heard quoted in Indonesia in connection to tree planting was, “Those who plant a tree and patiently tend to it until it bears fruit will have the reward of charity from God.” It is similar to the following canonical variant, which I also heard: “Narrated Anas b. Malik: ‘Allah’s Apostle said, “There is none amongst the Muslims who plans a tree or sows seeds, and then a bird or an animal or a person eats from it, but it is regarded as a charitable gift for him”’ (Bukhari).”

Cited in context, this indicates a core idea that runs deeply, perhaps even definitionally, through applied Muslim environmentalism in contemporary Indonesia, that the best way to a religious goal (reward of Allah) is through the proper and compassionate care and management of natural resources. For example, deforestation on Java has led to a prominent focus on tree planting in Indonesian Islamic environmental action. Already a part of Javanese tradition (newlywed couples will customarily plant a tree together), as well as part of the colonial legacy of plantations in Indonesia, it has a major symbolic and ecological significance, supported as it is by the great number of hadith that call to plant and preserve trees and to protect areas around them.

When it comes specifically to reforestation, in Muslim Indonesia, these injunctions may become fused with national policy, including the official implementation of programs such as REDD and REDD+ (the United Nations schemes for carbon conservation). The designation of conservation areas known as *hima* and *harim*, discussed further in chapter 5 and extending in tradition back to the time of the Prophet Muhammad (thus considered to be like *sunnah*), is based on protected wildlife areas or the conservation

perimeter drawn around trees and water. In the case of forests, Indonesian rainforests no less than any, Islamic religious significance is matched by environmental urgency in the twenty-first century. The catastrophic burning of rain forest across Indonesia, especially in Sumatra and Kalimantan, in the past decade reached unprecedented levels at the time of the completion of this book. The regional issue has global impact, not only in terms of the immediate health effects of transboundary haze smoke, but with the climate impacts of the burning; greenhouse gas emissions from the fires in 2015 exceeded that of industrialized nations like Germany in an entire year; the smoke and fire elicited religious response in Indonesia in recent years.²¹

In Qur'anic readings of the past and present, it is the habitation itself, as a "resource," and with the characteristic of sustaining and protecting life, that is a core environmental concept. Identifying the idea of a "habitat with resources" as "the environment" contrasts somewhat with the genesis of the modern use of the concept of the environment in English insofar as nonsentient phenomena (as in "nature") are also "creatures." In addition, to the extent that the modern notion of "the environment" comes out of notions of problem and crisis, there are theoretical differences. The Qur'an, however, already expresses an idea of environmental crisis in the past, present, and future in its apocalyptic themes. These are encompassed by the ethical notion of the "test" of living on this earth as a creature in relation to the rest of sentient and nonsentient creation, including resource use. This is echoed in the Qur'an's parable of "blighted gardens" (Q. 18:32-44), for example, which stresses awareness of the contingency of the environment and its resources on Allah's care. Other "punishment narratives" of destroyed cities and societies in the Qur'an present the ultimate worldly calamity to be catastrophic environmental destruction (flood, fire, rains of stones, and so forth). As a religious system, the ethical horizons of Muslim environmentalisms also naturally incorporate the limit point of today's humanistic environmental theory, the inevitable end of this world.

God's *Sunnah* and Accountable Relations

When preaching about the environment (*lingkungan hidup*), preachers in Indonesia and elsewhere frequently structured environmental teachings around the idea of intersecting vertical (*hablun min Allah*) and horizontal

(*hablun min al-nas*) connections. This is a dichotomy used for elucidating many Islamic religious subjects, especially prominent in Muslim Southeast Asia. The vertical dimension of the connection of humans to God is emphasized Qur'anically in Q. 3:103, which is the famous verse of "the rope of God": "And hold fast, all of you together, to the rope [*hablun*] of Allah, and do not separate. And remember Allah's favor unto you: how you were enemies and He made friendship between your hearts so that you became as brothers by His grace; and [how] you were upon the brink of an abyss of fire, and He saved you from it. Thus Allah makes clear His signs [*ayatih*] to you, so that maybe you will be guided." Another of the Qur'an's verses appearing soon after the quoted verse is Q. 3:112, "bound by a rope from Allah and a rope from the people" (*bihablin min Allah wahablin min al-nas*). In these verses, holding to the bond of Allah also ties together the community. (This meaning is even clearer when the verse's text is read in the context of its chapter, Al 'Imran.) In Indonesia, Muslim religious environmental theory and practice also cite the horizontal connection among humans and vertical connection to God, *hablun min al-nas* and *hablun min Allah*.

Muslim environmentalist preachers in Indonesia commonly add to this bipartite division a third Qur'anic concept, *rahmatan lil-'alamin* (alternatively expressed as a *hablun min al-'alamin*), sometimes also an expression relating to the Prophet (who is known as a "mercy for the worlds," *rahmatan lil-'alamin*, in reading of the Qur'an, Q. 21:107). In this context, however, the phrase is intended to indicate a relational dimension of "the environment." That the word *'alam* means "natural" or "wild" in Indonesian, as well as sounding like the word meaning "world" in Arabic (as in "Lord of and sustainer of worlds" in 1 Al-Fatihah), makes for an easy extension to environmental ideas. The word *rahmah*, as "mercy," also is the basis for much environmental teaching in Southeast Asia that emphasizes compassion for God's creation, just as the Prophet Muhammad was known to practice it, in order to receive the mercy of God in this life and the next.

In my own interviews with dozens of *kiai* (religious teachers and scholars) in Indonesia, the Islamic teachings they would give on the environment would invariably include this third term, *rahmatan lil 'alamin*, "mercy to the worlds." Their own explanations for this, when asked why, were often expressed by the idea that the whole universe (Ind. *alam semesta*) is the *sun-nah* of Allah.²² Thus human beings are responsible for maintaining connections across three dimensions: with God, with other humans, and with

Allah's sunnah, here meaning something like "participating within creation." Unlike another fundamental idea of human "nature" from the Qur'an (*fitrah*), which is a stative idea (as in the common aphorism that the natural state, *fitrah*, of all beings is "Islam"), sunnat Allah is an active paradigm. For the environmental humanities, this expresses a key distinction between "Creator and creation" as an inclusive and verbal relation, not a subject-object binary like "Man and Nature," which is a famously anthropocentric premise.

For some preachers like K. H. Fuad Affandi of Pondok Pesantren "Al-Ittifaq" in West Java, Muslim environmentalism may be comprised by the dynamism of these relations in Islam, which the Qur'an emphasizes are measured on scales of "justice" for all human and nonhuman beings. K. H. Affandi once asked a rhetorical question in an interview, "Which of these four things can you take away: the tiger, the deer, humanity or wood [trees]?" He answered, "None of them!" He explained that they are all connected, all within the "sunnah" of Allah. "What's dangerous," he added, "is if any one of them were ever to disappear." In the Qur'an, the primary dimension, and that upon which contemporary Muslim ecotheologies tend also to focus, is the correct relation of created to Creator, or between worshiper to Him who is worshiped. In this, humans are instructed to learn relationally from the example of God's other creatures (like trees, for example) which, unlike people, will never fail to worship intrinsically by nature.

All creation, the Qur'an continually points out, praises God, as in the following verse about Creation making prostration (*sajdah*) to Him in prayer: "See you not that to Allah prostrate (*yasjudu*) all things that are in the heavens and the earth: the sun, the moon, the stars, the hills, the trees, the animals, and a great number among humankind" (Q. 22:18). And, as mentioned above, there are the well-known rhyming verses that open 55 Al-Rahman, which appear right before the appearance of the "balance" (*mizan*, mentioned earlier), that invoke a similar act of nature's worship, including the verse about praying shrubs (or stars, *al-najm*) and trees that was previously cited: "(1) Al-Rahman [a Name of Allah] (2) Has made known the Qur'an (3) Has created humanity (4) He has taught him utterance (5) The sun and the moon run their course (6) The stars (shrubs) and the trees prostrate in worship (*yasjudan*)."¹ Humans, then, worship like and as creatures, just as do the trees in verse 6.

In line with contemporary Islamic ecotheory, such as that of Sarra Tlili, animals and other apparently nonsentient creatures act as a model for how to be in constant state of worship—their ultimate function of “utility” as a resource for humanity, as it were. The contemplation of signs that the Qur'an calls for, many hundreds of times, is to learn how to respond to Allah (as in prescribed emotions of thankfulness, *shukr*, and pious apprehension, *taqwa*). In addition, the signs instruct on how to be a creature among other creations in a horizontal dimension.

Following this, to place humanity at the center of this system is a matter of perspective, not one of ontological privilege. In her book *Animals in the Qur'an*, Sarra Tlili claims that the Qur'an depicts humans as *mukallaf* (in jurisprudential tradition, this means an “accountable person”: adult, sane, and having received the Islamic message); as such, they bear responsibility that other creatures do not. Humans celebrate and worship God out of choice through His will, whereas “nature” has no autonomous freedom or choice in this respect. Nevertheless, humans only partially understand God's creation and do not ever stand in as “minigods,” even as designated *khalifah*. Humans are a part of a creation charged with *tasbih*, the worship of Allah. Muslim humans (and presumably also Muslim jinn), pray as a ritual, but creation worships naturally as *sunan*, Tlili explains, for example: “Have you not seen that Allah is glorified by [*yusabbihu lahu*] whatever is in the heavens and the earth, and by the birds in flight. He knows the prayer of each [*salatahu*] and its glorification [*tasbihahu*]. Allah knows well what they do” (Q. 24:41). Even as the Qur'an makes statements such as this, Tlili also observes, it adds in the text immediate reminders of what humans do not “know well,” with their limited and willfully mistaken comprehension of creation. That animals have perfected the worship of Allah (*tasbih*) in the Qur'an is one of the foundational points on which Tlili grounds her brilliant, “nonanthropocentric” reading of the Qur'an.²³

Today's ecological teachings by international scholars emphasize something similar to a “deep ecology” or even ecofeminism, based in a Qur'anic system like the “signs” of God. Besides Tlili, others emphasize that humans are instructed to worship by nature itself, and that the very resources from which humans benefit in other ways are also creatures more adept at worship than is humanity. The Qur'an's verse Q. 33:72, that the heavens and the earth might have taken on God's “trust” (*al-amanah*), could now be read not only as affirmation of designated “stewardship” (as do Foltz,

Denny, and others in the volume *Islam and Ecology*) but also in light of indicating the Qur'anic presentation of humanity as remaining on the same side of the Creator-created divide as the rest of creation. From this it also follows that humanity bears a singular responsibility to act like the rest of creation (as mukallaf, as Tlili shows); and, as stated earlier, humanity is expected to fall short in their charge except for the relational mercy of God.

The verse Q. 33:72 further implies and that the trust (al-amanah) could have been the mountains', to whom it was offered, but who declined it; humans therefore also share a commonality with sentient creatures as well as nonsentient ones in this regard in the Qur'an. An "environmental verse" of the Qur'an that is fundamental for clarifying the equivalence of humanity to other creatures is the following, which implies that nonhuman beings also have a "community" (*ummah*), just like people do: "There is not an animal that lives on the earth, nor a being that flies on its wings, but [forms part of] communities like you [*umamun amthalukum*]. Nothing have We [Allah] omitted from the Book [the Qur'an], and they [all] shall be gathered to their Lord in the end" (Q. 6:38).²⁴ This meaning appears to many like a "deep ecology" of the interspecies ontology of creatures. Furthermore, and as will be discussed in chapters to follow, this famous verse conveys an additional environmental epistemology of the imperceptible but "not omitted" (like insects), another key point of Muslim environmentalism and its ecotheology of empiricism.

To be mukallaf in Tlili's sense means more than a legal status; it is to have met a level of challenge, to be tested with respect to clear and certain criteria of the Qur'an that are affective, intellectual, and active. Islam expresses an ethics of responsibility that other cosmological models in environmental humanities do not present on the surface, except through more vague moral sentiment, such as a return to "nature" as the alternative to or refuge from the modern. Through its signs, the Qur'an's rhetoric painstakingly explains the relation of the natural world to ethical consequence in this world and the next.

Qur'anic Rhetoric: Signs in This World

Although it does mention the audition of the jinn, the teaching of the Arabic Qur'an is aimed at the humans who teach, read, and hear it, however, not

other kinds of creatures (who may be otherwise “inspired”). Other creatures become the very signs (ayat) that point to conduct and response with respect to Allah as well as the creation of His authorship.²⁵ The Qur'an does not show a truncated human-world relation to be subject to judgment, but really an entire Creator-created system, for which processes and reactions are continually described across all the humanistic dimensions: with God (hablun min Allah), with other people (hablun min al-nas), and across all creation (hablun min al-alamin or sunnat Allah). All creatures, even inanimate ones, are bound together in their life-supporting systems (*ma'aysh*) in worship of Allah, and with all the expanse of earth defined in a hadith as a *masjid*, a place of prostration.

In a rhetoric so sophisticated that classical scholars prove the text's “inimitability” through its semantic and syntactical analysis, the Qur'an also invokes numerous natural forms and their properties (as the very stability of the ground itself) as signs, from faraway celestial objects to the smallest of insects, and even natural and environmental processes such as biological reproduction and the water cycle through rain. Furthermore, these environmental signs on this earth may also have palpable counterparts in the transformed landscapes of unseen worlds to come, such as in the rivers that the Qur'an describes many times that flow in Heaven and the boiling water of Hell.

Like trees, another key example of a resource as a sign is water: water appears as rivers, as rain from the sky that revives the dead earth (just as the dead themselves will be revived judgment),²⁶ as seas both salty and fresh that are a means of transportation as well as a source of bounty, and as the very substance in which life materializes. In the Qur'an, signs like the properties of water come in sections listing natural phenomena, such as Q. 2:164: “Indeed, in the creation of the heavens and earth, and the alternation of the night and the day, and the [great] ships which sail through the sea with that which benefits people, and what Allah has sent down from the heavens of rain, giving life thereby to the earth after its lifelessness and dispersing therein every [kind of] moving creature, and [His] directing of the winds and the clouds controlled between the heaven and the earth are signs [ayat] for a people who use reason.” In the Qur'an the phenomenal world shows signs of God (as “creatures,” ayat Allah), pointing to His creation, and, as such, they act as “mercies” for humankind.

Although such signs are often presented in terms of their benefit or utility, as in the previous discussion of the ontology of “resources,” the Qur’an does not always present signs of God in a positive affective environmental register. Qur’anic rhetoric of *iltifat* (changing frame of reference) shocks and surprises Qur’anic readers out of benign instrumentalism.²⁷ When considered as the processes that they are revealed to be, the signs can be viewed in terms of the Qur’an’s constant and immediate prescription of an internal response, a process of reflection, worship, sentiment, or moral change or commitment. Signs come actively to prophets through petition, as when the Prophet Yahya (John the Baptist) asks for a sign (which came in the form of silence, a contrast to the “word” of the Prophet ‘Isa [Jesus] himself, also a sign). Prophets also enact signs, as in many events also surrounding the Prophet Jesus. Signs may be past events, such as the destruction of past communities, the evidence of which the Qur’an’s readers are instructed to seek out and to reflect upon, even in their own lived landscapes. The Qur’an, in its uniquely self-reflexive and self-referencing style, presents even itself as a sign, a “proof,” as well as a “miracle” (*mu’jizah*), and *ayat* is also the Qur’an’s own term for its embodied, recited, and rehearsed textual verses.

An example of the Qur’an’s rhetorical depiction of the interrelated aspects of its environmental signs follows. Chapter 16 of the Qur’an, Al-Nahl (called “The Bees”), opens with a section on the natural world as God’s creation, starting in verses 3–4, which pair the origin of the universe and the creation of human life:

3. He created the heavens and the earth in truth. Exalted is He above the partners they ascribe.

4. He created man from a drop, and behold, he is a manifest adversary.

The chapter continues, listing the tangible gifts of creation to humans in the form of livestock. The benefits are immediate and palpable (warmth, food), aesthetic (beauty), as well as potential (making it possible to travel “to a land you would never reach”). The surah continues in verse 8 to mention the domesticated animals that humans ride (horses, mules, donkeys), and includes not only the benefit of transportation but other benefits such as “adornment.” This is typical Qur’anic rhetorical presentation, a sort of

proof by amazement, by which one idea—benefits of livestock—is shown to have multiple dimensions that exhaust what the human mind can grasp. Al-Nahl continues next with signs (ayat) on which the Qur'an instructs readers that they should now "reflect" (verse 11), such as water for people, plants, and animals (verses 10–11); plants in and of themselves (verse 11); night and day (verse 12); and even the spectrum of color (verse 14). These are mentioned along with the sea, mountains, and so forth (verses 14–16), which people may inhabit, traverse, and navigate. The section ends in verse 17 with a striking rhetorical shift to a question addressed directly to the reader, indicating the uniqueness of divinity as Creator and echoing the themes of the previous verses 3–4, "Is He Who creates like one who creates not?" Next, a textual confrontation challenges the reader to active participation, "Will you not, then, reflect?" And, the section concludes in Q. 16:18 with the idea that there is more than could ever be said about these "blessings": "Were you to count Allah's blessings you would not exhaust them. Allah is All-Forgiving, Merciful (*laghafurun rahim*)."

The next section emphasizes the all-knowingness of the deity, especially His knowledge about what humans are trying to cover up ("what they conceal and what they reveal").

No matter what the Qur'an prescribes as response (such as to "think" or "reflect," to be "thankful," or to "pray" and "pay *zakat*," and so on), signs of various kinds in the natural world point to Allah as Creator. Al-Khaliq (the Creator) is one of the names of God, commonly used several times for divinity in the Qur'an. Signs in the natural world (including celestial objects, and often even the "heavens" themselves) are proof of the point that Allah alone is the Creator. Besides through signs (ayat), parables and similes demonstrate these environmental themes as well, such as verse Q. 22:73: "O people, a parable [*mathal*] is set forth: pay attention to it. Those who call upon anything other than Allah shall never be able to create even a fly, even if all of them were to come together to do that. And if the fly were to snatch away anything from them, they would not be able to recover that from it. Powerless is the supplicant; and powerless is that to which he supplicates."

The phenomenal world—here just a tiny fly—indicates the power of Allah to create, a power that humans do not possess. Furthermore, the verse indicates that no other divine reality exists; there are no other "gods" because there is no power and no strength (*la hawla wa la quwwatah*) for creation

other than with Allah, as in a common pious expression based on hadith of the utterances of the Prophet Muhammad. In this context, the parable of a tiny creature (of which there are many in the text, as with various insects) conveys power and protection to be fundamental to the committed relations that constitute “the environment.”

Signs, ayat, even those as small as insects, invite a kind of “natural contemplation” in the Qur’an, or a *theoria physike*, to borrow a phrase from Orthodox Christian theology. In this way, ayat are typically accompanied in the Qur’an with a verbal directive for how to think, feel, or act. In some cases these are cognate to the European treatment of the sublime, in affective encounter with a “wholly other” (apocalypticism, words of the Qur’an, etc.) But they are also more. These are keys to guidance and action, in this world as well as in the world to come. Considering the horizontal and vertical relations to the natural world as environmental response, the Qur’an’s expression of the natural world as created, sustained, and destroyed are processes that constitute intellectual, affective, and moral states. Cognitively, the Qur’an directs this as if it is a scientific investigation, as the Qur’an calls on its readers to verify its signs, to “ponder” and “reflect,” engaging an aesthetic faculty critical to these perceptions as well. Rhetorically, the Qur’an also “explains itself” in this way frequently by concluding sections of its copious descriptions of the natural world with exhortations to particular emotional and moral states, such as to be “thankful,” to “think,” and even to “understand.” In addition, the Qur’an continually reminds readers of the limits of human comprehension, as in the frequently occurring Qur’anic phrases that refer to “that which you do not even know,” and others that convey meanings like “God knows what you do not.”

Besides demanding environmental response, the Qur’an’s signs represent environmental principles in and of themselves. For example, diversity as a “sign” is emphasized throughout the Qur’an, as in diversity of the spectrum of color, or human diversity (for example, Q. 30:22), and biodiversity, as in the abundance of plants and animals. In this the Qur’an points to the multifarious majesty of the Author through a divine meaning, but this is also ontologically meaningful in terms of the environment’s diversity as well. Not just the diversity of peoples (Q. 49:13) but the diversity of all phenomena—whether colors, feelings, or natural species—is continually emphasized through signs in the Qur’an as intrinsically valuable. As Izzi

Dien points out in his book *The Environmental Dimensions of Islam*, “uses” for resources can be variable in the Qur'an, but the Islamic religious truth of biodiversity is not.²⁸ It to be valued, even preserved, for its own sake and as signs in reflection of the multifaceted dimensions and majesty of the Creator.

Signs point to other environmental principles and processes through the Qur'an's continual reminders about creation's regularity (as in the motion of planetary objects, also the alternation of day and night) as well as its potential to undergo sudden catastrophe. Signs show not only that humans respond with respect to the Creator for what He has made on earth, including thankfulness for resources; also, the Qur'an's signs point the way for humans to act ethically *as creatures* among others, including nonsentient ones. An example of the rhetorical intertwining of the Qur'an's environmental signs and direct and directive address to the Qur'an's readers and listeners come in the chapter 55, Al-Rahman, as a repeated phrase that recurs throughout the surah in alternating verses. This takes the form of a challenging rhetorical question, “Then which of your Lord's favors would you deny?” The Qur'an's rhetoric and presentation, in Al-Rahman and throughout the text, renders signs in the present in terms of the consequential future, evidencing to believers that what is often called “the promise and warning” of the Qur'an is true. The vivid and detailed depiction of the future transformation of the environment in the Qur'an is essential to understanding Islamic environmentalist teaching among committed Muslims today, as well as the ontological perspective that Islam contributes to environmental humanities. Creation is shown to be moving processually into the state of a new creation in the Qur'an, whether imperceptibly and gradually (such as in biological reproduction), as the result of past or immanent future catastrophe, or as the inevitable and ultimate “calamity,” at which time responsibility is revealed.

While the Qur'an directs active, affective, and intellectual responses to natural signs and the principles they indicate to be immediate, environmental connections are not just in the present. Rather, signs always embed the phenomenological present into expanded frames, from the moments of creation (e.g., the “primordial covenant” or “day of *'alast*” of Q. 7:172) to the ample material that describes the ultimate destruction of the world. Much of the Qur'an shows the state of the world not to be undergoing creation or continuing in the course of regular duration or constant periodicity, but

creation's reaction to the unexpected yet inevitable unfolding of the future events of the Day of Reckoning (with many names, like *Yawm al-Hisab* or "Day of Accounting" in Q. 38:16).

The significance of human's relationship with other creatures, the results of the ultimate "test," are to be known when "the environment" is radically transformed out of humans' control. In addition to prescribing response to signs in "nature," the Qur'an thus provides rich material for Muslim environmentalism in the Qur'an's depiction of human beings confronting a transformed natural world, within environmental states and landscapes that are the direct consequences of their own actions. They are able to turn only to Allah's power as protection, which may mirror His mercy in relation to their own care of His creation. This is a realization of environmental justice as well as Islamic piety, since at Judgment actions in this life are known in terms of their impact on the realities of generations to come, who are shown in the Qur'an to call all who came before them to account.

Consequential Landscapes: Attesting to the World to Come

Approaches to Islam *and* the environment consistently fail to recognize the eschatological dimensions of the Qur'anic system of signs. The relative emphasis within the text as well as my own research findings in modern social contexts indicate that these orientations nevertheless shape Muslim environmentalisms with respect to some of the central themes of environmental humanities today, including the Anthropocene. There is much writing on cosmology in the literature on Islam and nature, such that by Seyyed Hossein Nasr (discussed in chapter 6); little of this, however, represents the message that comprises a large portion of the Qur'an's content: apocalypticism. This fundamental idea is also missing from just about every Anglophone treatment of Islam *and* the environment. This is surprising given not just the centrality of the Last Things (*al-akhirat*) in the Qur'an, but also in core Islamic religious practice and writings such as Al-Ghazali's (d. 1111) *Ihya' 'Ulum al-Din* (specifically, book 40), especially prominent in Southeast Asia.

The signs of God that the Qur'an presents as coming at the end-times are a prognostication of the end of the world. In context, they are emphasized rhetorically as a predictive reminder to those in the present about inevitable

consequences to be faced in the future as the result of immanent choices being made in the moment (*al-waqt*, to borrow a Sufi expression for the “right-now”). Rhetorically, these are scenarios of immediate, rather than delayed, individual and community response to “the promise and the warning” of environmental futures by way of the landscapes they depict. Communal and individual responsibility for the state of the world is clear in the portrayal of the Qur'an's destructive signs, which God effects. This connection of future worlds to come and the present moment makes eschatology a powerful theme that actually mobilizes environmental thought and activism.

Much of the last thirtieth of the Qur'an, chapters numbering 78 to 114, is heavily apocalyptic material, surahs understood to have been among the first to have been revealed to the Prophet Muhammad. That section is most commonly read, memorized, and recited in obligatory daily worship. The section, and much of the Qur'an (like chapters numbering in the forties, for example), contains rich, detailed, and unique imagery of the natural world under transformation to new environmental conditions: not only the sudden trumpet blast and chaos of the Last Day and “sun darkening,” “stars falling,” “mountains unmoored” (these images all come from Al-Takwir, Q. 81:1-3) but the eerie, incremental changes that precede it to mark the start of the chain of inevitable events, such as pregnant camels left standing in the pasture, “beats gathering” (the meaning of this is said to be ambiguous in tradition), water in the seas catching on fire, and a buried infant coming to life and calling out to the living from within the earth (these images all come from the next, consecutive verses of Al-Takwir, Q. 81:4-9). In practically countless Qur'anic examples of this type, the primary human activity of judgment is discursive, as in talking, a relational “sorting out” that includes testifying and confirming that God's promise and warning are true. The Qur'an shows humans even to shout across an altered environment as individuals and groups are consigned to what will be their destinations and habitations (future landscapes called “abodes,” *dar*, *mihad*, *mustaqarr*, *maqam*) in the world to come.

A great deal of the Qur'an's content describes the moment of judgment in terms of affective shock, when humans realize that the scales of justice have been weighed on their account and it is too late to alter what will be the landscape of their destination in the world to come (garden or fire). With dramatic and dynamic rhetoric, they engage in active and noisy

dialogue across the topography of apocalyptic space (for example, in surah 7, Al-A'raf), confirming that God's promises and warnings are indeed coming to pass. Even in the midst of chaos, the consequential landscape has relational coherence, as when denizens of the fire plead with those in the garden to send down some water (Q. 7:50); or when a person entering heaven is shocked to look down to see a friend in hell below and exclaims, "But for my Lord's grace (*ni'matu*, lit. 'pleasure'), I would have been there with them" (Q. 37:50–57). The Qur'an describes a wide range of responses to the inevitable events: from bickering and blaming, even when traveling en route along the highway to hell (Q. 7:38); to gratitude and satisfaction in discovering paradise; even to the extent of depicting a mutual satisfaction between God and creature in heaven (the phrase, "Allah is pleased, *radi*, with them, and they with Him" appears numerous times, in Q. 5:119, 9:100, 58:22, 98:8).

The Qur'an vividly depicts humans confronting the altered world of creation, heaven and hell, as transformed extensions of present life on earth. The ethical and affective dispositions of people in the life of this world, seemingly, will naturally carry on into future environments. The morality of this world also maps directly onto the environments of the altered world to come, as landscapes that are illustrated in detail as the garden (*al-jannah*) of Heaven and the fire (*al-nar*) of Hell. Heaven, for example, is presented in terms of formulaic expressions of a lush landscape of environmental abundance ("Gardens underneath which rivers flow" appears almost fifty times describing heaven in the text of the Qur'an). Hell, on the other hand, has its own vivid depiction as a dynamic space of talking. Much of the dialogue there is intergenerational, indicating the responsibility of generations for the ones who subsequently "follow" them and thereby reap the consequences of their prior moral tendencies.

Humans, while part of creation, also stand out from it by virtue of being called to account for their care of the world (*sunnat Allah*) and of others (*hablun min al-nas*), including what was left as a legacy for generations to come as shown in the Qur'an's judgment scenarios. In Qur'anic rhetorical terms, the world is a test, as in recurring and often-cited verses that show humans being tested as individuals and communities, also implied in the Qur'an's imperative to Muslims to "compete in good works," *fastabiqu bi'l-khairat* (Q. 2:148 and Q. 5:48). As prophets in the Qur'an deliver their messages, the Qur'an's numerous accounts (such as surah 7) show their communities being "tested" and, as a result, split into groups of those who accept

the “reality” (also the “warning”) and those who fail the “criterion,” and the test of their ability to respond to the “call” (*da'wah*) and not to “cover up” (*kufur*) religious and evident truth.

The notion of being “inheritors of the earth” (*khala'if al-ard*, plural of *khali-fah*) is presented by the Qur'an as also being just such a test. This is indicated by the following verse, the test regarding “what [the gifts are that] He has given you”: “It is He Who has made you the inheritors of the Earth [*khala'if al-ard*], and He has raised you in ranks, some above the others that He may test you what he has given you [*liyablukum fi ma 'atakum*]: For your Lord is quick in retribution [*al-'iqab*, lit. “consequences”]: yet He is indeed Oft-forgiving, Most Merciful” (Q. 6:165). This verse suggests how “testing” may represent a more Qur'anically aligned register for environmental responsibility (*khilafah*), in terms of the text's own emphasis on eschatology, implying consequence more even than the translated key word *stewardship*.

Theologically, the theme of testing can explain apparent Qur'anic human centeredness or speciesism, without recourse to anthropocentrism, as consistent with Islamic sources from the classical period to the present-day that portray the ethics of human-world relations. In the academic field of environmental humanities overall, anthropocentrism has been a problem, if not an anxiety, of contemporary ecotheologians in the field of religion and ecology. Since Lynn White Jr., anthropocentrism is often blamed as the harmful ideological culprit underlying environmental crisis.²⁹ The Qur'anic system of environmental justice is anthropocentric, insofar as it is humans (and jinn) who are tested; however, it is they who may be the only ones who need to take the test by virtue of an exceptional deficiency, compared to the rest of creation, which worships Allah as its essential character. Participatory creation for the sake of Allah and the world to come is a criterion of “being tested,” a condition humans took upon themselves apparently somewhat rashly, and the Qur'an supports a “nonanthropocentric” reading of this on its own terms. Examples from fieldwork, presented in chapter 6, show that eschatological awareness of the consequences of this status as “tested” creatures is actually a motivating rationale for environmentalism among pious Indonesians.

* * *

A hadith of the Prophet Muhammad (on the authority of Anas b. Malik) instructs believers to plant trees (to “hold on to the sapling in your hand”),

even “as Judgment Day irrupts,” and presumably they too will be destroyed. Qur'anically, this teaching is sensible insofar as the rationale to plant the tree would not even be in spite of the impending coming of Judgment Day, not “hoping” in its denial, but for the sake of that very determination itself. Drawing further on Qur'an and hadith as commitments of Muslim environmentalism, one could expect that the accounted merit of the deed (reward for planting) would endure, although the tree itself will not last forever—or even for very long. In this way, the embrace of apocalypticism does not inevitably lead to escape from either “hope” or from “hopelessness,” to use the preferred sentimental terms in the mainstream ethics of climate crisis. There is no flight from rationality when prayers are for a future in the garden by the river instead of the scorching heat of the fire; it is to imagine the unseen environmental reality of the future in both a real and metaphorical sense. Grounding Muslim environmental ethics in Qur'anic themes of relations of accountability, power, and protection, rather than romantic sentiment of feeling such as that inspired by colonizing “the land” (as in Aldo Leopold) or other frontiers is more realistic with respect to what religious Muslims actually express in light of the ethics of environmental change, seen and unseen.

Directing to anthropocentrism as a concern, Muslim notions of the environment affirming God as its Creator and Sustainer determine the human location as participating in the biosphere, as creatures (*makhluq*) within creation. In the Qur'an's apocalyptic framework of “signs,” changing signs in the phenomenal world, certain and unknowable, point to ethical and environmental relationships and practices in the present moment that extend across space, time, and species.

Secular environmental humanities does not have the tools to verify (nor to invalidate) the truth claims of the Qur'an and Islam, nor does it need to order to appreciate theoretical insights of Muslim environmentalism, Qur'anic viewpoints that shape the lifeworlds of nearly two billion people today. By virtue of striving for theory on an ultimate conceptual ethical scale (e.g., through the “ontological turn” in humanistic study), it is obligated to take seriously such accounts due to their commensurate registers, including apocalypticism. A notion of crisis might even demand it, as is becoming clear from the literature on the Anthropocene that currently dominates if not defines the field of environmental humanities. Such an

arbitrary assignment of an era of the Anthropocene as a marker of environmental humanities frequently stands in as theory, ethics, and explanation, much as periodization of the modern and the postmodern had done previously, and this is how it may appear when translated across religious systems. Muslim environmentalism, from the perspective of the academic study of religion, in fact challenges present-day frameworks of crisis that correspond to a popular humanistic concept like the Anthropocene.

The idea of the Anthropocene has come to mean the epoch in which human activities determine planetary conditions. Although the Anthropocene draws scientific legitimacy from the idea of arbitrary periodization in geology,³⁰ it is a highly imaginal concept expected to carry a heavy ethical and symbolic load in humanistic analysis. Despite the emphasis on determinative anthropogenic processes, it lacks an ethical frame in the twentieth and twenty-first centuries except for what remains of an inspirational register reminiscent of Victorian sentiment or the American religious revival of the second Great Awakening. These, while consistent in self-presentation grounded in earth sciences, nevertheless still share much in affect and analysis with the late-twentieth-century anxiety of the nuclear age.

The concept now sweeps up many issues that formerly constituted the idea of an environmental crisis in the 1960s and 1970s, pollution to atmospheric change to species loss, together as one great notion while focusing on humanity's power and potential in having shaped these circumstances. Its scaling dehumanizes mythic "deep time," suppressing the significance of agency and thus responsibility,³¹ whereas, as if by definition, it simultaneously focuses on the phenomenology of anthropogenic causes and effects with no other ethical or relational referent. It does little to resolve the paradox that popular and even best-selling treatments of environmental ethics simultaneously condemn the viewpoints associated with "anthropocentric" social processes, even as they cast this as the conditions under which planetary and even apocalyptic crises have arisen, as in projected effects like climate change and mass species extinction. Alternative or indigenous perspectives on "the ends of the world" still remain peripheral to this.

Muslim environmentalisms, as in this chapter, diverse but grounded with respect to sound Qur'anic referents, recast such humanistic assumptions about philosophical anthropocentrism, what a crisis means, and also potentially the idea of the Anthropocene itself. As Marion Katz, a scholar of

Islam, wrote, "In a very different sense than we would understand today, traditional interpretations . . . suggest that, for Muslim thinkers, it was always the Anthropocene—environmental disaster was pervasively assumed to be the result of human wrongdoing."³² In addition, Muslim worldviews have had a notion of crisis embedded in their eschatological reality from the start as an ongoing ethical calculus, not the projection of an ultimate collapse into oblivion. While human impact is critical to this moral system, it is not deferred up to the limit point; the idea of final "accounting" (*hisab*) instead continually rescales the ultimate human consequences into its factors in the moral present. Measuring responsibility against horizons of the unthinkable in one sense, the Qur'anic ontology of processes of creation, destruction, and recreation, on which the Qur'an instructs humans constantly to "reflect" even with their limited capacity to understand, orients humans' ethical action clearly and temporally *via-à-vis* other creatures. These creatures (*makhluq*) include even resources that are used instrumentally, with this relational use doubling as a sign of God. Even when expressed apocalyptically, this is always a measured calculation of consequence, never chaos.

Islamic activists like those I encountered during research in the ethnographic field express a religiously oriented Muslim environmentalism that is built on an ethical foundation engaging crisis as natural consequence, which includes apocalyptic futures, while simultaneously affirming care of "the earth" as a criterion for the success of the state of the world to come. Muslim religious systems thereby confront the hard facts of unseen and unpredictable futures that are the results of human action in eschatological scenarios. Illustrations to follow from religious law and politics, science, aesthetics, and activism, all based on Qur'an, reveal such connections of ontology and responsibility, which a secular focus in environmental humanities has been at pains to recognize and express. The ethical aspect at the root of Muslim environmentalism is a dimension with which academic humanities also now grapples on its own terms: standing for justice, in communities, enduring together the reality faced by creatures of the world. For this articulation, theory in environmental humanities needs a more robust statement of the ethical problem than geological positivism or naive phenomenology can provide. New metaphors commensurate with Qur'anic expression could accommodate the proportions of present environmental apocalypticism to keep apace with the implications of a radical justice, as is

also to be found at the root of Muslim environmentalisms. To accept this scale of humanistic demand made on a former tradition of moral sentiment, representing ethics in environmental humanities, would likewise support anchoring affect in empirical and experiential realism, which has long been a highly developed feature within the Islamic humanities.

FOUR

Roots and Branches of Islamic Environmental Justice, Law, and Ethics

THERE IS NO clear distinction between norms of “law” and those of “ethics” in Islamic systems, as prominent Islamicists in the history of religions like Frederick Denny, Fazlur Rahman, and Kevin Reinhart have dedicated publications to pointing out.¹ All actions and attitudes are understood religiously to be assessed ultimately at final judgment in terms of their potential reward or punishment. In verses that refer to clear evidence and testimony, and even the scales of justice, the Qur’an represents this accounting or weighing much like a court of law. Furthermore, Islamic law as presented in this chapter is not enforced, making even clear and certain rulings, like those of ritual law (e.g., to pray *salat*), resemble ethical norms. Conversely, ethical injunctions about the environment, including those to “goodness” and “beauty” (the word *ihsan* means both), are treated here in the same conceptual framework as Islamic law, also following Islamic traditions that stipulate them with authority.

The degree to which environmental crisis is cast as a moral crisis explains the turn to religion, including Islam, to promote environmental messages, even among secular associations. Religious law, whose stipulations are rarely enforced, even in the era of nation-states, is typically viewed to be a regime of authority that should be influential among the pious. To this end, messages of environmentalism are communicated in Islamic legal terms, such as through nonbinding legal opinions like fatwas in Southeast Asia. In such cases, an expectation is shared among Muslims

and non-Muslims that environmental problems represent an ethical crisis that requires some sort of religious solution, and Islamic messages are seen as more effective in this regard than secular ones with identical directives and state-supported measures for enforcement. This discussion contextualizes both Muslim law and ethics, revealing the commitments that comprise environmentalism, and thus what are implicit humanistic views of “the environment” within expanded religious frames.

Islamic legal traditions classically divide into guiding principles with theoretical or procedural “roots” (*ʿusul*) of the law, on the one hand, and applied tangible rulings, the “branches” (*furuʿ*) of jurisprudential *fiqh*, on the other.² The chapter gives a survey of intellectual roots and applied branches of Islamic law and ethics of environmentalism, past and present. When “Islamic law” (*shariʿah*) is adopted as a political rhetoric or statutory system of the nation-state, a construct begun by European colonials and their subjects and perpetuated in the postindependence era, it remains a fluid and modern imaginary. While *shariʿah* is, classically, an unapproachable ideal, *fiqh* is the term for Islamic jurisprudence that embodies clear rulings (and to some extent, specific rationales for them). This, and what is rhetorically called *shariʿah* in a modern political discourse, often reflects a rhetorical symbolic idealization (“the will of God”) as societal norm. What many refer to as *shariah law* in English and other languages are thus state-enforced statutory systems of *fiqh*, applying an unprecedented intervention within Islamic legal structures. Classically, *fiqh* is understood to be a body of jurisprudential rulings, contingent on human understanding, as indicated by the root meaning of the Arabic word.

Rulings that predate the modern construction of “environment” are included here as a matter of *fiqh*, determinations and attitudes on specific questions to which principles and practices may be identified as commitments of environmentalism. In many modern cases, they are identical to environmentalist concerns and even what is secular environmental law today, such as in areas of resource management. In addition to these “branches,” which are areas of actual stipulation (ritual law, resource management, and so forth), the “roots” of Islamic law also express principles that guide environmental norms, which resonate with ideational systems that are relevant to environmental humanities. These represent environmental ethics, and combine with other forms of everyday Muslim practice and systematization, as with *adab* (norms of situational comportment).

Modern social thought that undergirds diverse Muslim visions for law and society, secularly oriented or otherwise, is characterized by tendencies such as rationalizations of the “public good” that further inform Muslim environmental law and ethics, certainly so since the latter twentieth century. Muslims, like Egyptian scholar Yusuf Qaradawi, have attempted to construct environmentalisms specifically through these same Islamic terms and in relation to contemporary ideas.

After a general introduction to Muslim environmental ethics, justice, and Islamic law of the environment, this chapter follows the standard ordering of a classical manual on Islamic law (*fiqh*) with respect to environmental themes. First, just as in the sequential ordering of jurisprudential material in tradition, it presents ritual law. Ritual (*ibadat*), for example, prayer, community practices of fasting, place-based Hajj and its sacrifice, and “purifying” wealth by redistributing it to the deserving (*zakat*), illuminates broader Islamic legal attitudes and principles on the environment. It also shows how they are enacted on a daily basis in Muslims’ religious lives, producing an embodied ethics. Discussion here treats ethics based in Islamic religious praxis that extends beyond actions formally stipulated in legal manuals such as prayer and fasting, including religious actions and comportment with respect to the environment that Muslims nevertheless understand to be rewarded by God, like that which is based on the model of the Prophet Muhammad (*sunnah*).

One of the challenges of the new field of environmental humanities is that the environment (as in scientific ideas like the biosphere or romantic notions of nature) and environmentalism (that is, human commitments in response to problems) are not reconciled. Ethics, what shapes an environmentalism as commitment to the environment, bridges that gap in analysis. One could start with ethics to define the environment itself, which otherwise would lack any nontrivial or consistent definition in environmental studies. Further in the case of Islam, ethics provides conceptual coherence, if not systematicity, to the human patterns that emerge around environmentalisms. With continual referencing to tradition in Qur’an and hadith, and with disciplined sciences (*ulum*) dedicated to their study in areas ranging from grammar to esotericism to law, Muslim religious frameworks that undergird the religious environmentalisms of this chapter, and this book, are as coherent and flexible as any other mainstream global environmentalism. Religious tenets are upheld based on confession of faith

in Islam, yet viewed humanistically Islamic systems represent the kind of ethical paradigm that is nevertheless being sought when the analysis of secular environmentalisms comes up against internal problems of ethical concretization and aspirational universalism.³ In practice, secular environmental organizations are also turning to Islam as a matter of outreach and intervention.

This discussion here distinguishes multidisciplinary environmental humanities (itself one branch of environmental studies) from a narrower field it includes, environmental ethics. The latter may relate to studies of either religious ethics or philosophical ethics, each of these tied to a different discipline in the areas of humanities, that is, religious studies and philosophy respectively. In this study, which is aligned with the field of the history of religions, the apparatus for ethical analysis comes from the area called comparative religious ethics (not philosophical ethics). For the present purposes, it is a field characterized by non-European material as well as ethnographic grounding in the study of religious human subjects. Methodologically, this sets an altered course for environmental ethics than what has been standard methodology since the past fifty years in the U.S. and elsewhere, long before Islamic normative perspectives would be introduced into the mainstream conversation.

As per a point made by Roderick Nash in the first pages of his book, *Rights of Nature*,⁴ the field of American environmental ethics over the past fifty years has followed a trajectory of amplifying validity of the category of the environment first to recognize the human standing of others (nonwhite people, women) and then to extend it beyond the human. This extensionist trend now expands the environmental subject, as in “environmental personhood” represented by legal standing for the “rights of nature,” across humanity to include more subjects, for example, large mammals. (The theory of Gaia itself is, after all, a paradigm of anthropomorphic personification.) Following the ontological trend that came out of a 1990s phenomenological turn in contemporary environmental humanities as well as anthropology,⁵ this ethical imagination now reaches beyond inter- and intraspecies perspectives not only to embrace the human and nonhuman but also the nonsentient, even nonliving and constructed, imaginal, and virtual worlds, and these in hybridized forms as well.

Much discussion of applied and activist environmental ethics in the Anglophone tradition, such as “nature” thinking in the global white-settler

tradition, and Marxist or Marxian social and political ecology, has focused on extensionist principles. Arne Naess's original manifesto on "deep ecology" is productively vague in its ongoing inspiration of many important facets of environmental ethics; it too represents adding more ontological dimensions onto that which was considered the meaningful sphere of environment, famously connecting self and world in a Gandhian key of "ecosophy."⁶ Ecofeminism shares many of the insights that recognize as well as connect to "others," and feminist critique of power relations often draws on the Marxian tradition in environmentalism in order to do so.⁷

The area of rights of nature, once initially theorized as a thought experiment of Christopher Stone, *Should Trees Have Standing?*,⁸ now expresses some of the most significant global activism today, seeking to advance realization of the standing of environmental objects in legal frameworks compatible with Anglophone law from local to international levels. Many statements on the rights of nature stipulate the legal standing of natural objects, such as rivers and mountains. While grounded in a rights-based discourse such as constitutional or case law, globally these claims tend also in some way to draw upon culturally determined notions of environmental personhood, such as through native worldviews. This is a major area of global environmentalism in connection with the claims of indigenous people, who are designated as "guardians" of such features or areas by state and international legal bodies.

The claims that diverse Muslim systems make are more likely to be erased than appropriated in this register of academic pluralism in environmental humanities. This is because power dynamics are brought to bear in secular environmentalisms, which seek to gain from imaginaries of ethical diversity in environmental humanities that adopt normative content of non-Christian religious systems as enhancement, possibly stripped of systematicity or identity-specific commitment. Well-documented cases of the romantic decontextualization and appropriation of "nature spiritualities"—indigenous, African, Asian-Pacific, or others—align with this observation.⁹

A complementary line of religious philosophy and practice, a Qur'anic paradigm expressed in various ways across fields of science, art, and Islamic religious sciences like law, anticipates fundamental characteristics of contemporary environmental ethics through Muslim environmentalisms of consequential commitments. For example, these stipulate the relation of the human to the nonhuman, the sentient to the nonsentient.

Furthermore, an ontological extension of the environment into the unseen within Islamic religious systems encompasses indeterminate futures for all creatures. In this chapter the non-Eurocentric frameworks of Islamic law and ethics articulate well-defined ethical theory and practice with respect to environmental commitments. At times they intersect interests of contemporary environmental humanities (such as the rights of nature), but they are also autonomous. Due to the robust tradition of ethical-jurisprudential tradition in Islam, a great deal of which has addressed explicitly environmental concerns for at least a millennium with shared points of reference, they also have a tendency toward internal coherence.

Some of the environmental norms in Islam may be considered to be practical environmental ethics, such as guidelines of ritual law that pertain to environment that come to constitute everyday, habituated ethics through practice, and many are situation-responsive. Some Muslim ethical principles may be derived in such a form as meta-praxis such as through ritual law, and contemporary Muslim environmentalists have developed these approaches as well. For example, a description of Islamic traditions like environmental *adab* requires little construction to be called an ethics in this mode. In addition, formal Islamic jurisprudence treats environment with respect to standard frameworks of environmental studies today, such as with cases of resource management like water access and use. This engages a second major area of the branches of law, coming after ritual, that is, stipulations of social transaction (*mu`amalat*). Throughout the chapter, discussion emphasizes norms that are said to be based on the authority of Qur'an and hadith, demonstrating enacted principles like "rights" (*haqq*), "justice" (*`adl*), and environmental "personhood" (here as a creature/*makhluq*) such as through Islamic jurisprudence (*fiqh*). These relate both to results of the author's field research as well as to current topics in environmental humanities and ethics such as human-animal relations.

In terms of modern movements and messages, the chapter also analyzes sources and reasoning for explicit Islamic law of the environment. Since this contemporary construct is often discussed in terms of general principles, it falls in between the fluid categories of theory and practice, law and ethics. In each stipulation of Islamic environmental law, there are considerations that loosely correspond to the roots of Islamic legal theory (*'usul al-fiqh*) such as branches of guidelines for worship (*'ibadat*) and rulings on social transaction (*mu`amalat*). Relevant rulings range from matters of

environmental management and practical ethics to social justice, and then to the final judgment of all relational accounts. As a modernist project to imagine categorically Islamic environmental law, or *fiqh al-bi'ah*, this involves intellectual reinterpretation of classical legal theory like the overarching reasonings of “aims of the law” (*maqasid al-shari'ah*) along with ethics, such as that of the “public good” (*maslahah/istislah*), that already characterize contemporary Muslim social thought.

Legal scholars' Muslim environmentalism represents a system of ethics that occupies the expanded ontological frames and consequences of an unknown future, relevant to today's conversations in environmental humanities. Although not always developed directly in response to a notion like the environmental crisis, the practical reasoning of Islamic legal theory regards the environment as the conditions that support life, that which makes all other required activities (such as Islam) possible. As formally rationalized, protection of the environment is the most overarching criterion (*maqsud*) according to a sound Islamic jurisprudential basis. Islamic environmental ethics in legal traditions are similarly premised on a clear and precise accounting of how specific measures relate to future and ultimate results. They also support understandings of moral and scientific causes and effects that carry forward into the ambiguous and precarious uncertainties of the environmental future. The Qur'an's continual reminder to “stand for justice as witnesses to God” (and vice versa) undergirds the paradigmatic manifestation of this moral order, ontologically revealed as an ultimate judgment to which all are subject.

Environmental Practical Ethics: Adab

From the perspective of normative and jurisprudential frameworks, Islamic law is meaningfully both general (*'am*) and specific (*khas*) in its terms of what is “the environment.” Legal norms (which here include both rulings of *fiqh* as well as ethics, or *akhlaq*, in Islam) have many specific concepts that comprise various environmental ethics. Standard treatments of Islam and the environment, as shown in the previous chapter, tend to focus on Qur'anic key words (*khilafah* and so on). *Fiqh* traditions may be approached through key words as well as a matter of practical ethics, but these differ from the start from the semantic legacy of Anglophone humanities because

they immediately would highlight matters of equity and justice, Qur'anic ideas like *dhulm* ("oppression") and *'adl* ("justice"), for example. For example, Islamic practical traditions on conservation and protection of resources, such as water management, reveal principles like the guarantee of public access to shared resources, also a matter of social equity.

A principal contribution that Islamic materials make to the humanistic study of the environment is to conceptualize ethics in both theory and praxis in a systematic way. This is not just a feature of the intrinsic value of one particular idea or another, but also how they fit together overall. Environmentalists, religious or not, often construe the environment in ethical terms, yet they lack commensurate tools to make significant connections, such as between science and morality in the heritage of European enlightenment and its historical counterpart, extractive imperialism. One dimension of Islamic environmental ethics and Muslim environmentalism more generally is a centuries-old development of practical ethics. Some of these norms fall under the heading of *adab*, a term in use since the earliest times when it was associated with particular tasks or functions. The notion could also express ethics more generally, such as in the present meanings as a more generalized idea of cultivated comportment.¹⁰ *Adab* is proper, conditioned behavior that comprises both the classical aspects of *'ilm* (knowledge) and *'amal* (actions). Sufis often deploy the term, and for them it enhances the dual aspects of the cultivation of virtue ethics as well as the regulation of behavior in specific settings. Traditionally, *adab* is vocational (there is an *adab* of serving as a judge, being a Qur'an memorizer for the whole community, a master musician, a committed Sufi, and so forth), and much *adab* literature corresponds to proper behavior in settings of the transfer of knowledge, teaching and learning, religious (as in a madrasah) or nonreligious (such as with being an apprentice in a craft). An *adab* is replicable, propagated through practice, like Bourdieu's *habitus*.¹¹

Here is an example of an *adab* as environmental ethics from a modern Muslim environmental thinker. Mawil Izzi Dien, whose research in Islamic studies is on the jurisprudential practices of commerce prior to writing on environmentalism, discusses key terms in the Muslim "practical ethics" of environmental management from within the Islamic legal tradition. For this environmental ethics, he focuses on *hisbah* (accounting) drawing on social and legal history of an "advanced administrative system," indicating a model that was known inside and outside the Middle East and North

Africa.¹² Although he does not advance the religious implications in these terms, various forms of “accounting” (*hisb*, *hisab*) are a key metaphor in the Qur’an, in which every deed and event is recorded and evaluated, even a single leaf falling (Q. 6:59). As environmental ethics, it therefore implies seen and unseen systems, both material and transcendent, of regulation and ethical management. As an *adab*, these ethics are shaped by formal disciplines of Muslim environmental law and occupational norms, with which Izzi Dien is primarily concerned with social and historical practices in his book. Religiously, this also belongs within a Qur’anic system that holds that justice is ultimate while emphasizing values and evaluation in ideal as well as practical registers in the present as well as the world to come.

Izzi Dien explains that assuring there is an individual to fill the appointed role of oversight, as *muhtasib*, is a community’s responsibility overall. Invoking classical sources on regulation of commercial transactions, Izzi Dien defines *hisbah* as actively ordering good and prohibiting evil, undertaken terms of both knowledge (*‘ilm*) and action (*‘amal*).¹³ Environmentally, Izzi Dien’s point is that the practical ethics of the appointed officials, who often were well versed in the law, constituted practical environmental authority in effect by contextual judgments, and this fulfilled an obligation to community justice.¹⁴ Izzi Dien’s historical description of the *muhtasib* as environmental practitioner amounts to an *adab*, and he would generalize from this norm of a social role and function a practical ethics of environmental justice in Islam.

Muslim social and religious ethical expectations that combine environmental theory and practice connect to religious messages of universal causes, ultimate effects, and human responsibility. These are also systematized in social frameworks like *adab*, which are supported coherently across multiple dimensions of tradition. Environmental ethics, whether expressed as *fiqh* or *adab* or another traditional notion of ethics (*akhlāq*), or by modern ideas like deep ecology, environmental justice, and rights of nature, embrace universalizing religious ideals, both moral and environmental, in terms of rationales of cause and effect. In Qur’anic perspective, this directs to the future conditions and ultimate end of this world, as well as the anticipated state of a world to come as determined by Allah (*hablun min Allah*). At the same time, in this world, these commitments coexist self-consciously alongside other, nonreligious spheres worldwide in terms

of their realistic ends and means. However much pious apprehension (*taqwa*) they may embody, they can only be fully realized communally and relationally (*hablun min al-nas*), including in economic and political spheres. Nevertheless, it is not usually formal ethics to which institutional approaches turn to operationalize Islamic environmentalist norms—and, Anglophone moral sentiments are often invoked like awareness, care, and concern as the highest-order ideals—but rather concrete initiatives seek to leverage environmental aspects of the nonenforced rulings of ritual and transactional *fiqh*.

Ethics, Embodiment, and Ritual Law

Ritual law (*'ibadat*) is not subject to analogical rationales (*qiyas*) and other independent reasoning (*ijtihad*) that defines other Islamic attempts to formulate modern and systematic “Islamic law of the environment” in Sunni systems. However, ritual law determines a coherent category that could be said even to constitute one aspect of what is the environment with respect to the religion of Islam. This is because it determines aspects of daily embodied interaction with the surrounding world, including actions like placing one’s forehead on the earth thirty-four times each and every day (in seventeen *rak'as* of prayer), locating and using clean water, and regulating food consumption (during Ramadan) and other activity. The ritual of Hajj is, among other things, comprised by a multiday trip camping out in the open air in tents. These actions do not need to be allegorized in terms of spiritual principles (like purification) or derived as philosophically environmental in order to view them as Islamicizing embodied human-world interaction.

For example, in his treatment in *Green Deen*, Ibrahim Abdul-Matin relates a story about achieving a perception of what is the environment and environmental awareness through obligatory prayer (*salat*), a practice to be performed periodically, anywhere. This account illustrates the book’s theme, that “the earth is a mosque,” through the account of formative childhood environmental experiences with his father. In Abdul-Matin’s words, here is part of his story:

The Earth is a mosque, and everything in it is sacred. I learned this basic tenet of Islam from my father. . . . I spent my early childhood in the New York

boroughs of Queens and Brooklyn. My brother and I used to think the entire world was a sea of concrete buildings. My father upended that reality the day he took us to Bear Mountain. . . . On that trip, we were black Muslim city kids hiking “in the country” for the first time. . . . When it was time for the afternoon prayer, my father stopped to pray. My brother and I asked him where he was going to pray. He pointed to the ground, to a small area he had brushed free of twigs and leaves. Until that day, prayer for us had always been something done at home or in the mosque. . . . On Bear Mountain, as we prepared to kneel down in prayer, my father related a *hadith*. . . . “Wherever you may be at the time of prayer, you may pray, for it (the Earth) is all a mosque.” At that instant, and I could not have been more than five or six years old, I understood for the first time: the Earth is a mosque; a mosque is sacred; therefore, the Earth is sacred. That moment of prayer on the mountain, thanks to the *hadith* my father relayed, transformed the way that I would see the world forever.¹⁵

In this example, Abdul-Matin expresses a typically twentieth-century American trope of the environment (i.e., “the sacred” landscape, experiencing an adventurous outing in the great outdoors). This also comes through the ritual practice of prayer as articulated through norms of *fiqh* and the Prophet Muhammad’s model, or *sunnah*, which is known through *hadith* like the one Abdul-Matin recalls his father relating.

Islamic law is divided into two areas: ritual law and law of transaction. They both have environmental dimensions, and both provide models for a wider praxis. *Fiqh* manuals of Islamic law always begin with ritual, taking up a discussion of purity (*taharah*)—relevant to some forms of worship. Law of worship (*ʿibadat*) then comprises the first half of any Muslim handbook of Islamic law. Ritual guidelines are the religious law that is most widely known by male and female Muslims of all ages, whether they are formally educated in it or not. It is further embodied in preferences and practice on the part of observant Muslim individuals. *ʿIbadat* formally includes the most prominently required and rewarded actions, the obligations known as the five pillars of Islam. Discussed in chapter 2 were efforts to “green” these pillars of Islam as a way to constitute normatively what could be said to be Muslim environmental action. However, as illustrated by the anecdote related by Abdul-Matin, Islamic ritual action is already inherently and committedly “environmental” for Muslims in fundamental respects without

accreting further ideological interventions such as “sustainable” product choices and consumption on Hajj and during Ramadan. Environmental knowledge and practice that are embedded in the acts of worship themselves may provide one comprehensive basis for environmental ethics.

Religious acts of worship in Islam, including acts of ritual purification, require intention, *niyyah*. Following a hadith, it is said that in Islamic law all “actions are known by their intentions.” In ritual law, valid enactments are only constituted (and thus may be said to be recognized or rewarded by God) on the basis of the intention that accompanies the action. In the context of new ritual frames, especially for prayers that are expressly dedicated to “environmental awareness,” it is the intentional aspect that is enhanced. Even without an explicit environmentalist dimension, however, there are implicit environmental intents in classic ritual law. For example, the ablution usually performed prior to salat requires clean water. Such ablutions are required by stipulations of ritual law in order for salat to be valid (to achieve *taharah*, the state of ritual purity), with salat in turn considered to be a Qur’anic criterion for judgment in the afterlife. Recall from chapter 2 that leaders of conservation projects in Indonesia recognized the primary environmentalist significance of rituals, such as with the report that the rationale of protecting clean water that is needed for ablutions, if available, was a more compelling argument for buy-in than conservation projects with nonreligious rationales (such as public health). In addition, many modern Islamic environmental initiatives in Southeast Asia develop facilities to recycle water for wudu’ in the mosque as a practice of resource conservation that is both symbolically powerful as well as real.

Other required ritual actions constitute a Muslim environmentalism in a noncontrived sense. As a principle of equity relevant to environmental justice, Jonathan Benthall and Jérôme Bellion-Jourdan observe, zakat (legal almsgiving, one of the five pillars of Islam, which transpires in two community forms at the end of the month of Ramadan) is sometimes cited as an internal theory of wealth redistribution (along with other visions of Islamic finance). These scholars conclude, however, that although “the theory of zakat is raw material ready to be picked up and made use of by Islamic reformists . . . in practice, zakat has been marginalized. Not a single Islamic state exhibits it functioning as it should, as a system of automatic redistribution.”¹⁶ It is nevertheless a mechanism stipulating a measure of social as well as environmental justice in the form of ritual law (*‘ibadat*).

In another example, Izzi Dien suggests in his book, *The Environmental Dimensions of Islam*, that Hajj, the required pilgrimage to Mecca once in a lifetime, could be understood as intrinsically an “environmental festival,” noting that it all takes place outside over many days and that things “return to nature” (for example, men do not shave).¹⁷ Also a required part of the Hajj, as well as the global practice of Muslims at the annual time for Hajj pilgrimage, is the *adha* sacrifice, undertaken by those on pilgrimage that year as well as Muslims observing the festival that marks the end of Hajj worldwide. Eid al-Adha brings up the question of animal rights for many environmentalists, as does “green *zabihah*” (slaughter) for halal meat. Related, another pillar of Islam, “*sawm* (fasting, also called *siyam*) centers on food, community, and, even apart from Green Ramadan initiatives, is commonly framed worldwide as a practice to contemplate experiences around food security and shortages, whether near or far.

Returning to the prayer enactments stipulated by formal ritual law, there are specific salats that are prescribed in tradition that could easily be termed *environmental* because they are stipulated solely with respect to environmental conditions. These occur in addition to the five-daily prayers at the prescribed times. They include salats for rain and also those performed on the occasion of earthquakes and eclipses. Texts of Islamic jurisprudence authorize salat prostrations for rain (*salat al-istisqa'*) as a petition for a desired environmental outcome. This practice is based on a hadith that the Prophet Muhammad conducted the practice. In tradition, it is said not only to be humans but also other creatures, like ants, who pray for rain as well.

Prayers for rain address unambiguously environmental conditions: drought. As a ritual, *salat al-istisqa'* is governed by guidelines that include a combination of *du'as* (prayer formulas) and *rak'at* prostrations, as performed in canonical salat. Classical books of *fiqh* treat the prayer for rain along with required salats for other unpredictable yet inevitable events like funerals, and other salats that are performed in the event of natural signs (*salat al-ayat*) like eclipses and earthquakes. The difference between *salat al-istisqa'* and the other conditional salats is that prayer for rain occurs before, not after, the event. Moreover, a key difference between required salat of worship (*'ibadat*, as in Abdul-Matin's story) and salat for rain is that rain-salat is a petition for a specific outcome. As with other Muslim *du'as* (which include petitionary prayers and other invocations),

with these prayers there is a third term added to the relation of God to supplicant: the event of falling rain. Present scholars of religion would certainly call this practice environmental, if not Muslim environmentalism, since it is described as a religious response to environmental conditions, and ones predicted to be exacerbated by climate change.

In the twenty-first century, the practice of prayers for rain is widespread. For example, Islamic prayers for rain have been held in the San Francisco Bay Area of California, my own place of birth, as a response to drought in the years before the publication of this book. When I was living in Indonesia during the same time, July 2015, there was also drought affecting Bogor, Indonesia, in the region around the nation's capital, Jakarta, in West Java. A friend explained that people in Jakarta partially blamed people around Bogor for flooding (a result of factors like poor land management upstream, but also an overall increase in severe rainfall and "king tides" and other effects in a coastal city that is also sinking due to groundwater extraction), while people in Bogor similarly blamed nearby Jakarta for exacerbating a fresh water shortage (due to extraction from hillside streams for bottling and sale in the megacity). The day before I arrived in Bogor, a big *salat al-istisqa'* was held that many attended and that was widely publicized in national papers. Two days later, rain fell. The report of one newspaper in Jakarta at the time ended with the quip that it was hoped that now that it was raining the prayers for rain would stop in nearby Bogor or else Jakarta might flood even more. This humorous irony relies on the presumed efficacy of religious environmental practice.

Prayers for rain were also offered globally on behalf of Indonesia that same year in connection to the devastating annual peat forest fires that often burned out of control in Indonesia, choking the entire region with the worst transboundary haze conditions in a decade in 2015. The fires can be impossible to extinguish when they smolder underground, and the particulate could be detected halfway around the world, such as right above my home in Wisconsin. This was widely reported in English-language global media at the time to be the greatest environmental catastrophe in the world, with greenhouse gas emissions from the fires at the same levels as the nation of Germany for one year. In 2015 public health impacts of potentially lethal transboundary haze smoke were felt as far as Cambodia and Vietnam, with shutdowns and weeks of school closures in Malaysia, Singapore, and Brunei. The fires are set in the rain forest to clear land, often for oil palm

plantations but also for other uses like pulpwood, from Sumatra to Papua and largely on the island of Kalimantan (Borneo). The activity is largely illegal and undocumented by the state. Because the fires smolder and spread underground, under El Niño's drought conditions of 2015, cloud seeding and air drops of water could not put out the fires. The only thing that could stop the fire was for God to bring rain.¹⁸ Prayers for rain in Indonesia were offered as far away and as prominently as the "sacred mosque" (the Haram at the Ka'bah) in Mecca in October 2015.¹⁹ Recourse to Islamic ritual law was the only response available to religious Muslims who lived in the area with no other means of control over the disaster in their own powerless position of precarity.

Fiqh as Environmentalism: Rights and Rulings on Water and Animals

Everyday ritual actions (*ʿibadat*) like prayer (*salat*) may be said to constitute environmental practices, as through embodied repetition. However, Muslim environmentalists derive positive theory and practice from branches of *fiqh* that relate to social transaction or *muʿamalat*. Discussion in this section considers two environmental topics, first water, then animals, from the perspective of Muslim legal guidelines. Some of these stipulations resemble environmental law as in Anglophone tradition, for example, with cases of regulating water access and use. Other standard issues in *fiqh* like animal treatment speak to key concerns in contemporary environmental humanities and ethics. Muslim environmentalists also drawn upon such norms self-consciously as teachings to be propagated through religious *daʿwah* (outreach).

Water law, like the law of inheritance in Islam (to which it may in fact relate in some cases), is a large area elaborated upon widely by Muslim jurists historically. In an ethical and jurisprudential framework, water functions in Islam as a paradigm for the treatment of shared resources in terms of public access and availability.²⁰ Water management in the theory and practice of Muslim law and ethics shows a core principle of the just and equitable access to resources with respect to environmental conditions that support life. This is directly relevant to larger questions today that are critical across the humanistic, social-scientific, and natural-scientific fields

of environmental studies, including legal studies, that relate to whether there is a general or universal “right” to water. And, if there is, who beyond humans could be said to possess such “rights,” and who else, or what else, even beyond sentient creatures? Can bodies of water such as rivers be claimed to have their own rights, as many activists argue worldwide, including in the Asia-Pacific region today?

Within the nexus of ritual and community law in Islam, water begins to indicate some aspects of principles relevant to Muslim environmentalism. For example, with respect to the ablutions required to validate prayer and other ritual acts (*wudu`* and *ghusl*, which require clean water if available), there are elementary admonitions to conservation in fiqh manuals, such as not to use water to excess, only that minimum which would be sufficient to validate the action. Prophetic traditions (hadith) also prohibit overuse of water in *wudu`*, whether among individuals or by entire groups, even deeming the wasting of water in *wudu`* to be “a practice of the devil.” Elsewhere, the Qur’an emphasizes the idea that “God loves not the wasteful,” as in Q. 6:141. Constructing a modern Muslim environmentalism, Izzi Dien argues that this is a key environmental teaching in Islam, underscoring that it shows the inherent value of water and its conservation, in that it is not to be wasted, even if in abundant supply. Izzi Dien builds on this rationale to suggest that legal reasoning according to analogy, *qiyas*, would afford further extrapolation from this case of water conservation, including stipulations of the right to public access to water, in order to derive principles that would be applicable to the conservation of other resources.²¹

In another environmental register, an intrinsic value of water from a religious perspective is also indicated experientially by the sunnah of “standing in the rain.” This is reported to have been a practice of the Prophet Muhammad: as rain fell, he would stand outside bareheaded. When asked by his companions about the reason for this practice, he is reported to have answered, “The rain has just come from its Exalted Lord.” Implied, this is an experience of God’s life-giving creation, proximity to the Creator, and, in tradition, scholars relate the Prophet’s words in hadith to the Qur’anic description of rain as a “mercy.” Although there is no formal “adab of the rain,” this is a matter of practical ethics and piety around natural resources, and in tradition it carries the recommended legal status of sunnah as a documented practice of the Prophet Muhammad.

In Islamic ritual law, water also connected to notions of purity and impurity, in both literal and figurative meanings of *pollution*.²² Manuals on ritual law detail how much impurity (*najis*) is allowed in a water source before it cannot be lawfully used for ritual purposes. For instance, a question found in the elementary classical manuals of legal scholars is, if an animal were to fall into the water supply and perish in it, how much water would need to be removed along with the (impure) carcass in order to make the water again usable for ritual purposes? In his book, Izzi Dien offers another proposal based on this idea too, himself being a legal expert. This would extend the legal notion of impurity to anthropogenic and industrial processes, writing: “In my opinion, factory and other industrial effluent can be considered true impurities, *najasa haqiqiya*. However, they may be divided into immediate impurities such as abattoir waste and sewage, delayed impurities such as plastics and polystyrene, and poisonous impurities including asbestos.”²³ Izzi Dien’s analysis of what is pure and impure follows classical Islamic legal reasoning on *taharah* (ritual purity); along with defining what is environmental with respect to Islam and vice versa, he here also provides an Islamic legal basis for policy and standards derived from assessments in ritual law.

The social significance of public water access and related norms, whether with implied or explicit legal justification, is evident in the history of city planning on the part of Muslim communities. This has been documented since the earliest times to have been a key concern of “Islamic” governance in many regions, such as under Umayyad rule. In later centuries, from the Ottoman states to Muslim South Asia, the construction of reservoirs and the collection of water around mosques was a key element of statecraft. Under religious law, building and maintaining water resource management systems is covered by a pious endowment (Ar. *waqf/awqaf*), which may be established for religious or educational purposes and ensures functioning in perpetuity.

As a modern example of mosque design and water management from an Islamic perspective, an award-winning architect and urban planner in West Java and designer of the eco-pesantren Dar al-Tauhiid, Professor Budi Faisal, discussed the symbolic as well as real dimensions of water resource management in a recorded interview with me. Questions about recycling water used for ablutions in mosques (the subject of an Indonesian fatwa by the Majelis Ulama Indonesia [MUI, the Indonesian Council of Religious

Scholars]) in 1978 hinge on interpretation of the sources of ritual law as well as symbolic value of recycling wudu` water. Many eco-pesantren point to the recycling of wudu` water as being precisely the criterion that identifies the institution as an eco-pesantren. Dr. Faisal connected this to his theory and practice of designing and building a “green mosque” (on the grounds of the eco-pesantren Dar al-Tauhiid), in terms of the use of local and sustainable materials like bamboo and nativistic design principles from the region.

In the interview,²⁴ Budi Faisal discusses some of the challenges of water management in the greater Bandung area, calling the situation “ironic” (*ironis*): despite copious flooding, which in no small measure is due to poor land management, people are forced to purchase water. He states that much of the per capita usage of water occurs in the form of an average eighty liters daily that is consumed in making ritual wudu`. He reasons that to recycle water used just for wudu` ablutions would have a significant impact on conservation, and not only for the mosque. Additionally, if there were water catchment areas in which untreated water could be stored as a nonpotable source, this would alleviate supply problems. As Islamic religious justification for these proposed initiatives, Professor Faisal highlights principles of conservation in the Prophet’s exemplary sunnah of water use. Water conservation in urban planning and Muslim religious space overlap here in multiple practices and possibilities.

One of the religious rationales for public practices and institutions dedicated to the social provision and management of water from a religious standpoint, whether ancient *aflaj* irrigation systems in Oman near to the Persian Gulf or the most recent thinking on how to solve critical problems in water resource management in a modern Asian megacity, is the Islamic requirement to provide community access to and availability of water. This fundamental principle of resource use is a kind of “rights-based approach,” although not in the sense of modern liberalism and its own rights-based orientation. The idea of a right (*haqq*) to water is commonly said to have been set forward by a well-known hadith of the Prophet Muhammad, “People are partners in water, vegetation, and fire” (this is related on the authority of the figure Abu Dawud). Some scholars interpret this statement broadly in terms of the imperative to sustain life, and others have extended the specific reasoning to other resources, even beyond matters of water and land use. In documented Islamic jurisprudential opinions, issues of the

“right to water” also relate to questions of community well-being such as building embankments on a river that might flood.

The right to access to drinking water, called *haqq al-shiffa*, was taken up in detail by Islamic legal scholars in the early period who often cited the hadith of the Prophet Muhammad, above. In this context the statement has been interpreted according to the formal legal category of a “public partnership,” meaning that each partner is not a full owner of the resource and thus cannot exercise control over it without the others’ permission. Providing water for others is also considered to be an action that is compulsory (*jabr*), like following the laws of inheritance.²⁵ This obligation reflects commitments like that of another more general maxim of Islamic law: “no harm should be inflicted on others,” which is also a principle of general environmental significance in Islam, applied to cases of resource management.

Specific guidelines provided by traditions of *fiqh* within the classical legal sources stipulate Islamic water law in terms of four categories of access:

- *sea water*: accessible to everyone
- *water from large rivers* (such as the Tigris and Euphrates): accessible to everyone and permissible for use in irrigation as long as others’ rights are not infringed upon
- *shared water* (to which more than one person has access): all have the right to drink, but irrigation is restricted
- *water stored in vessels*: property (may be seized under conditions of short supply)

As Izzi Dien explains this, jurisprudential tradition treats the right to water for irrigation, called *shirb*, as a separate matter from ownership of the land to be irrigated. Disputes about irrigation supply are to be settled in respect to the area of land affected and also the principle that all parties should get their fair share. In Islamic law of various schools (*madhhabs*), inherited or acquired irrigation rights cannot be transferred by marriage dowry, in a divorce, or sold to pay off debt.²⁶ These stipulations all comprise various aspects of the environmental “right” (*haqq*) to water in Islamic law.²⁷

Turning now to Muslim jurisprudence on animals also as an environmentalist thought and practice, there are clear and authoritative Islamic

rulings of rights and obligation with respect to animals from the perspective of classical fiqh. This includes what could be called the rights of the nonhuman creatures themselves. Many scholars have noticed the similarity between guidelines of the slave contract in classical, premodern Islamic law and regulations on domesticated animals. There is also a significant amount of hadith and other material commonly cited in regard to the killing and slaughter of animals, including statements by the Prophet Muhammad that prohibit hunting for sport or entertainment. Furthermore, certain animal species are licit for killing (snakes, for example) while others are not (ants said to be due to their special relationship to the Prophet Sulaiman [Solomon] in the Qur'an).²⁸ A commitment to rethink categories of animals that may be killed and consumed by humans—maybe none at all?—has led to a contemporary movement in Islamic vegetarianism, including a reassessment of the “feast of sacrifice” (Eid al-Adha).²⁹

Classical sources of fiqh express animal status and even experience fundamentally in terms of animals' rights and human obligations. As quoted in more than one contemporary source on Islam *and* animals, medieval figure Al-'Izz b. 'Abd Al-Salam (1181–1262) stated that the rights of domesticated animals and other creatures dependent on humans were to be respected through humans' actions as follows:

- He should spend on it (time, money, effort) even if the animal is aged or diseased in such a way that no benefit is expected from it. His spending should be equal to that on a similar animal useful to him;
- Nor should he overburden it;
- Nor should he place with it whatsoever may cause it harm, be it of the same kind or another species;
- He should kill them properly and with consideration; he should not cut their skin or bones until their bodies have become cold and their life has passed away fully;
- He should not kill their young within their sight;
- He should give them different resting shelters and watering places which should all be cleaned regularly;
- He should put the male and female in the same place during mating season;
- He should not hunt a wild animal with a tool that breaks bones, rendering it unlawful for eating.³⁰

In light of our present time being labeled by Elizabeth Kolbert and others as the era of the sixth mass extinction on earth,³¹ how do such principles of responsibility to domesticated animals and wildlife now carry forward in an age of anthropogenic planetary disruption? This is a pressing question across environmental humanities. Furthermore, the Qur'an's relational depiction of inanimate and nonsentient beings, like mountains and even the earth itself (Q. 99), conjoins with a definitive problem of Anglophone environmental ethics: if Muslim environmentalism rests on the Qur'anic premise that all creation, including resources used by humans, is a creature (*makhluk*) made by Allah, then, beyond humans, jinn, and the animals, what existential authenticity or rights should nonsentient forms also be said to have?

During fieldwork, I heard about half a dozen prominent environmentalist *kiai* (religious scholars who are also community leaders) teach or preach on a "rights-based approach" to the environment in religious settings. The idea has been popular in the development industry in the later decades of the twentieth century (this is sometimes contrasted with a capabilities approach, like the idea of flourishing discussed previously in chapter 2). When I asked religious leaders across Java what they preached specifically on the environment (such as in their Friday sermon or *khutbah*), I would often hear the environment called a "sixth human right." In the fieldwork context, I believe this claim not to come directly out of a Qur'anic reading or an established Muslim jurisprudential framework, however, but probably guided instead by rights-based discourse as popularized among NGOs.³² As with the argument made in chapter 2, however, this influence would make it no less meaningful or valid as an expression of Muslim environmentalism. Due to management of Islam in governance during the colonial era, continuing into the era of nation-states, many such strains of Muslim public reasoning now circulate locally, nationally, and globally as postcolonial environmentalist thought and practice with Islamic legal authority.

Public Reasoning for Islamic Environmental Law

Emerging out of a humanistic practice of environmental law and ethics, both Muslim and non-Muslim, is a prevalent idea that environmental issues

are fundamentally moral problems suited to religious correction.³³ Environmental harm, whether resulting in sudden catastrophe or “slow violence,” is typically claimed to have been caused by ethical failure, just as in the famous article by Lynn White Jr. Coming out of this is the expectation that religious solutions will be effective when other approaches fall short. Potential Islamic law of the environment is thus widely expected today to address directly a moral crisis, compellingly and uniquely, thereby providing the most effective and only lasting solution. Such initiatives, when promoted by non-Muslims, are based on the expectations of the projected, maybe monolithic, authority of “Islamic law,” apart from any demonstrable mechanism for enforcement. From a Muslim perspective like that of the Egyptian intellectual Yusuf Qaradawi, *fiqh*, along with other fundamental “sciences” of religion like the Qur’an, is naturally the place to begin to develop Islamic environmental definitions, standards, and philosophy. An example of this is the common theorization of environmental ethics among environmental legal scholars through moral and material notions like the degradation of the earth, *fasad*.³⁴

Besides practicing the “environmental” aspects of tradition implicitly, such as by following ritual law incrementally further “greening” the norm, Muslims have been attempting to develop an explicitly programmatic “Islamic law of the environment” in contemporary contexts.³⁵ Such efforts differ from the ad hoc and issue-driven publication of environmental *istifta’* (fatwas), which, as I will discuss further in this chapter through some well-publicized cases in Indonesia, are highly adapted to the bureaucratic conditions of modern nation-states as well as non-Muslim NGOs. In some instances, programmatic Islamic environmental law is an official policy directive or suggestion in response to particular issues, whether classical material like water resource management or modern guidelines for conservation; however, this too develops systematic theory and practice for Muslim environmentalism, representing rulings that could now to be included within an emerging jurisprudential genre, *fiqh al-bi’ah*.³⁶ *Fiqh al-bi’ah* (“Islamic law of the environment”) is systematic and grounded in tradition broadly. An example is an influential book published in 2006 in Indonesia by the NGO Conservation International (with support from the World Bank), drawing on the collaboration of dozens of religious scholars nationally, titled *Fiqh Al-Bi’ah/Fiqih Lingkungan* (this translates into English as Islamic environmental law).³⁷

Although its title means “Islamic environmental law,” the book is not exactly a systematic work of jurisprudence, nor does it adapt that structure to present modified ideas (like Qaradawi). Instead, it is a compilation and documentation of a national conference convened to bring together religious scholars and environmental leaders for discussion. It reproduces the text and Powerpoint slides of participants’ presentations at the conference, such as representatives of various institutions including pesantren (Islamic schools), the Islamic university in Jakarta (UIN Syarif Hidayatullah), as well as NGOs like Conservation International and the Nature Conservancy. The book’s pages 16–33 contain the results of working groups of scholars who compiled material from Qur’an, hadith, and *kitab salaf* (authoritative works), printed in Arabic and Indonesian. Its Qur’an citations emphasize humanity’s role as a creation of Allah and humans’ responsibility as God’s stewards on earth. Some verses address the purported causes of environmental harm, which are classified in terms of moral themes, namely: destruction (*merusak*, Q. 7:56 and Q. 74); dishonesty (*curang*, Q. 11:85); “disorientation, lack of balance, excess” (Q. 55:7–9); “loss” or “change” (Q. 4:118–19); and the “influence of base desire” (*dorongan hawa nafsu*), for which there are numerous Qur’anic illustrations. Hadiths cited generally emphasize the points that the Prophet Muhammad called humanity stewards of God, that shari’ah requires upholding the “common good,” and, in a variation on classical “aims of the law,” that shari’ah (as known through hadith) supports rights to land and livelihood. Other material relates to the atmosphere, seas, and waterways, and the wider “worlds” that contain them. Those who participated in the meetings describe the imaginative agility with which these scholars could extemporaneously brainstorm fresh ideas from their own vast knowledge of Qur’an, hadith, and other traditions.

Other common themes and reasonings from the Muslim sources developing Islamic law in Muslim frameworks, as found in contemporary materials from Indonesia, share authoritative intellectual features of modern Sunni Islamic legal theory.³⁸ These ideas were present in *usul al-fiqh* (legal theory) dating back to the formative ninth century (the time of Al-Shafi’i, d. 820), but only in the era of nation-states have they become integral to Muslim legal traditions (starting with writings around the time of Muhammad Abduh in Egypt). A central idea emerging from this modern, yet traditionalist, legal theory and practice is that the environment is what is necessary for human survival in this world and the next. This is compatible

with the classical notion of the environment as a “life-sustaining” habitation and resources (and also as in ultimate judgment in the Qur’an, coming with the earth’s “re-creation,” presented previously in chapter 3). The expanded ontological frames that draw on Qur’an as applied to the environment in this ethical-legal context mean that the ultimate measure of humanity’s success, and even survival, includes, but also extends beyond, this created world. In addition, the most common type of reasoning given in terms of rationales of cause and effect in these circumstances relates to communal considerations, not individual sentiment or personal responsibility, as is prevalent in much non-Islamic environmental ethics.

Environmental legal reasonings found in contemporary Muslim sources tend to rely on two concepts that are typical of modern Islamic jurisprudential frameworks and extend to social thought more widely. These are “aims of the law,” or *maqasid al-shari’ah*, and claims to “public good” (*maslahah*). Both cast the premise of a life-supporting biosphere to be the necessary condition that allows the existence and also thereby the legal standing of any and all other circumstances (including the rest of Islam). Most attempts to formulate a general idea of Muslim environmental law will offer explicit discussion or citation of either of these two fundamental principles, *maqasid al-shari’ah* or *maslahah* (or its variant, *istislah*).

In *maqasid al-shari’ah* the letter of the law is guided by its spirit. This is to protect the five “objectives” (*maqasid*): religion, life, reason, legacy/progeny, and property. These have been standard in *‘usul al-fiqh* since the early period, such as in Al-Shafi’i’s *Risalah*, but are not foregrounded in the classical sources. They are now commonplace in legal-political thought, proposing that anything that supports any of the five ultimate aims of the law shares in the quality of being a foundational principle to uphold. I have heard it explained to me many times, formally and informally, by Muslim environmentalists, legal scholars, and others, that for each one of these *maqasid* the healthy biosphere is an even more essential condition on which they are all contingent. Thus, not only is environmental well-being the foundational stipulation of all legal rulings, but the rationale for this is as much social (e.g., protecting “lineage and “property”) as it is individual (as in protecting “life”).

A second kind of popular rationale for Muslim environmental law and ethics draws on another core principle expressed in modern Muslim legal public reasoning, and Islamic social and political thought in the era of

nation-states more generally. This is the notion of public good, in that whatever is understood to benefit the social good (*istislah*) is considered to be a public good (*maslahah*). Contemporary legal and ethical arguments in Muslim environmentalism and Islamic environmental law typically rely on *maslahah* for their reasonings. For example, rulings that treat resource management, if they are not based on precedent in Muslim practice (like *hima* and *harim*), tend to reason from ideals of public good. *Maslahah* is a cornerstone of modern Islamic public reasoning, and, notably, it can function to render matters of formerly “private” ethics to be issues of public morality in the era of nation-states.

In addition to these, reasonings such as “not to corrupt the earth” are commonly given as a general support for specific measures, as in the case of Indonesian fatwas like the ground-breaking national ruling on environmentally friendly mining in 2010. These moral reasonings establish ethical, social, and material connections necessary to apprehend environmental change within jurisprudential frameworks. The derivation of norms also follows formally established rules and rationales, such as the *'illah* (underlying principle of revelatory or scriptural justification or “ratiocination”), for example, a logic that in no way prevents everyday propositions to be assessed in terms of ultimate ends.

With respect to reasoning and authority, the enforcement of modern Islamic law, in terms of environmental norms and statutes, is not a factor for discussion. Explicit norms for Islamic law of the environment intentionally duplicate, and are even thus redundant with, compatible measures such as civil and even statutory law of the state. Religious rulings to protect the environment may be the same in civil and religious discourses, but the rationale and theological fields differs with a transposition into an Islamic legal framework. This is sought after, as, for example, by international NGOs, as by supporting fatwas expressly to operationalize symbolic power and authority. Rather than stipulating structures for social or political policing, rarely if ever found in classical sources in any case, such imaginaries naturally extend into ethical and even eschatological frames. In addition to patterns like those that have been presented here, modern Muslim environmental legal reasoning, while not emphasizing unspoken causes and unseen effects, is nevertheless creatively open to multiple kinds of religious legal argument, including guided discretion.³⁹

For example, in the first national environmental fatwa issued in Indonesia, under the authority of Nahdlatul Ulama (and without external stakeholders in this case), the Indonesian religious scholar instrumental in developing the nonbinding ruling was K. H. Thonthawi.⁴⁰ This figure explained the systematic derivation of the ruling according to sound Islamic legal reasoning to me in a videotaped interview, which begins with the assertion that the harm of extreme environmental degradation may be viewed legally as equivalent to the illicit taking of human life (not to mention wildlife, loss of property, impact on future generations, he adds). Thus it is governed by the *hudud*, the “limits” set by God, for which the Qur’an indicates punishments for criminal action.⁴¹ K. H. Thonthawi’s argument was that to cause environmental degradation corresponds to the prohibited taking of life and was thus categorically *haram* (forbidden). This is not a common argument, and the broad scope of the ruling is also unusual, but it is sound. However, even if a ruling rests on religious “limits” like “not to corrupt the earth,” no one is seriously considering enforcement for the prohibition on environmental harm in the Islamic courts. K. H. Thonthawi would expect enforcement of environmental law to come under the usual jurisdiction and authority of the secular state. Whether a civil or a religious system is more ethically compelling, with or without any mechanism for enforcement in a Muslim-majority society, however, is an open question for many who seek to change public environmental attitudes in the present.

In global perspective, Indonesia, the world’s most populous Muslim-majority nation, is one of the most active in the development of Islamic law of the environment and Muslim environmentalism overall. For example, there is a work of almost three hundred pages authored by the scholar and former head of the MUI, Alie Yafie, *Merintis Fiqh Lingkungan Hidup* (Opening the way to environmental fiqh), published in 2006 through Yayasan Amanah.⁴² Alie Yafie describes at length environmental problems globally, and those with a severe impact on Indonesia in particular, including climate disturbance. He makes his own religious argument against overconsumption (based on scriptural authority), admonishing readers that the life of this world is not the ultimate goal of Muslim life. He also offers comprehensive, specific policy recommendations for state and society, which comprise most of the book’s conclusion. The work uses the disciplined terminology of classical Islamic legal theory freely, while its appendixes offer substantial

Qur'anic citations, grouping verses according to topics such as "water," "air," "land," "prohibition of destruction" (*fasad*), as well as a brief selection of (just) twelve hadith.

There are three core concepts of public reasoning for Islamic law of the environment that appear centrally across sources like this one, along with related expression in Indonesia (as well as Arabic work circulating globally, like that of Yusuf Qaradawi). These are presented here, with reference citations from Yafie's lengthy work. They are that environmental care is

1. a necessary precondition for clear religious duties insofar as to conduct fundamental acts of worship requires a healthy lived environment (such as the stipulation for clean water in order to perform ritual ablutions, itself essential in order to carry out the obligation of salat prayer);⁴³ some treatments cast a legal requirement to environmental care in stronger terms than this, as a self-justifying religious duty (this is in fact one of the three main rhetorical points of Yafie's book, and it is emphasized throughout);⁴⁴

2. a necessary precondition for human and Muslim religious flourishing/survival; Yafie gives a rationale for this in terms of *maqasid al-shari'a*, the aims of the law, to protect faith, life, reason, lineage, and wealth;⁴⁵ in his chapter 3, Yafie extends this argument, stating that to annihilate nonhuman creatures is to destroy the very principle of life itself;

3. Muslim environmentalism supports social, communal, public or common good, as encapsulated by the terms *istislah* and *maslahah* (and Indonesian derivatives like *kemaslahatan*).⁴⁶

Each of these rationales posits that a life-supporting ecosystem comes prior to another goal or necessity as its antecedent. In Indonesia such theory connects integrally to the *dakwah* ("outreach") that shapes an explicit Muslim environmentalism in the public sphere.

In Indonesia, as with cases elsewhere from Southern Asia (like those in India inspired by Mahatma Gandhi), there is a tendency for normative religious perspectives on the environment to focus on social harm and betterment. No matter what the avenue of inception, measures for Islamic law of the environment tend to engage one of the deepest features of Muslim environmentalisms, a commitment to environmental justice. They connect to lived circumstances and living questions, as in fatwas, and

develop within diverse Islamic religious systems. These, in general, emphasize community values such as equity (the public good) over, for example, a notion of personal and autonomous “rights” that have naturally extend from considerations of private property and ownership.

Mobilizing Ethics (Fatwas) and Environmental Justice

Islamic law is developed instrumentally and systematically, even symbolically, in order to promote social ethics around the environment. The modern application of nonbinding legal opinions called fatwas show the degree to which the environment is expressed as a moral problem, with a proposed religious solution incorporating notions of social justice.⁴⁷ Formally, fatwas are answers to questions (*istifta'*) and have differed a great deal historically from expectations in the present (traditionally, no rationale for the non-binding legal opinion is provided, nor is one necessary—just the answer is given). They now also vary greatly across national contexts, with differences in Indonesia and Malaysia. Traditionally they are nonbinding and unenforced, carrying only the authority of the issuer, even in the unprecedented era of state bureaucracy and Internet dissemination today. Among national organizations in Indonesia that would issue fatwas, and also within them, there is a great degree of variety (as with the Nahdlatul Ulama and Majelis Ulama Indonesia). They are increasingly sought out by international agencies to operationalize Islamic messages, for example, the tiger fatwa given here. They also represent yet another mode through which to view attempts at local environmental mobilization, particularly emphasizing social and environmental justice, as in an Indonesian case of the crisis in waste management and its impact on marginalized communities that will be examined further on in this chapter.

Environmental justice became well established as a field of Anglophone environmental studies and activism largely through sociological analysis and Marxian praxis with respect to structural racism in the U.S.⁴⁸ The connection between Islamic material and environmental justice has been developed explicitly in a few contemporary treatments by writers who tend to draw on the call to social justice in the Qur'an, linking it to economic justice, environmental racism, and colonialism.⁴⁹ This highlights one of the stronger features of Islamic religious messages in Muslim

environmentalisms within emerging environmental humanities, because throughout the Qur'an is a repeated, emphatic imperative to "stand up for justice" (Q. 4:135, for example). The text also offers a constant and consistent condemnation of "oppression" (*dhulm*: hundreds of times), which, even when directed at others, is always cast as an oppression of the self as well. The Qur'an shows the earth, *al-ard*, itself to be corruptible by humans and therefore is to be a locus if not a beneficiary of divine justice. In the U.S., the field of environmental justice mobilizes community activism as much as it represents any academic theory. The community-based focus of fatwa initiatives that originate from local concerns correlate with this community-directedness to some degree.

A statement issued by the Indonesian national organization of "traditional" religious scholars, Nahdlatul Ulama, "Taushiyah NU Tentang Pelestarian Hutan dan Lingkungan Hidup" (NU's advice on forest protection and the environment), represents the social and legal reasoning behind ethicizing the environment in such a mode. It was disseminated after the annual meeting of the organization's National Committee on Forests and Environment in 2007.⁵⁰ In its conclusion, the document restates what is a strongly worded fatwa from 1994 that had been issued by the national meeting of NU in Tasikmalaya, West Java. This expressed a general ruling, which reads in translation: "[that] to establish/maintain pollution of the environment, including the air, water, and land, when a crisis [*Ar. dlarar*] emerges is hereby ruled *haram* [impermissible according to Islamic law], and is considered to be [in the Islamic legal category of] a criminal act [*termasuk perbuatan kriminal* (*Ar. jinayat*)]."

The document emphasizes moral issues as the overall root of environmental problems, and in large measure it also presents ethics as ecological solutions, citing specific circumstances and local conditions throughout. The document concludes with pointed recommendations for what is REQUIRED (WAJIB, rendered in capital letters) of members of the NU, and elements of Muslim society at large, which includes "to carry out environmental jihad" (*Ar. jihad bi'iyah*), described in largely concrete terms for analyzing environmental justice;⁵¹ to continue to strive (*melanjutkan perjuangan*) in society (*jihad jtimaiyah*); to improve moral teachings that are moderate, tolerant, and balanced (*tawasuth, tasamuh, tawazun*); and, to "command the good and forbid the evil" (*amar makruf nahi munkar*).

The statement is also meant to apply more widely than just to the members of NU and to those who are religiously Muslim (both of these groups are specified as such). Additionally, the final conclusion addresses the “Government of the Republic of Indonesia,” upon which are REQUIRED (WAJIB), substantial measures such as to “uphold the supremacy of the rule of law without discrimination” while “stressing that the degradation of the environment, whether air, water, or land, will lead to catastrophe ([Ar.] *dlarar* / [Ind.] *kerusakan* [the terms in both languages appear in the text]).”

This appeal to social mobilization for the sake of justice is typical of religious Muslim environmentalisms in this register, as is a combination of the concerns of this world and the next. Religious prescription here coexists along with, expressly complements, and even authoritatively dictates secular and enforced civil law. In such treatments of Islamic law, Indonesian Muslims and others typically cast *fiqh* to be more persuasive and politically successful than other ways of addressing what is taken at its heart to be a moral problem of justice. Explaining how it is that for the problems of the environment a religious solution is effective, Hayu Prabowo, director of the agency that issues environmental fatwas for the MUI, explained that, unlike secular laws, “There is no avoiding the law of God.”⁵² Legal and theological reasoning about the world to come, even Judgment Day, is directly relevant here to the engaged practice of Muslim environmentalism to the degree that conditions experienced in the next world are the soteriological extension of current environmental issues and concerns.

Hayu Prabowo’s comment in the interview conveys this efficacy in social terms, however, rather than primarily theological ones. He explained at length that there is a perceived accountability in religion greater than worldly accountability (which is subject to corruption). Thus Muslims may rightly expect religious solutions to be effective when other compatible approaches would fail; with this, religion now encompasses and exceeds the compelling features of secular environmentalism, not the reverse. For Hayu Prabowo and others in the MUI, mechanisms to achieve solutions in environmental justice are made effective through “socialization,” or dissemination through Islamic *dakwah*, outreach. As discussed previously in chapter 2, NGOs tend to support these messages that are intended for Muslim networks, as they originate and circulate within bureaucratic state systems.

Although traditional fatwas are never enforced, modern fatwas like those issued by Hayu Prabowo's agency within Indonesia's MUI retain a high expectation for development, dissemination, and outreach (and which does occur in international English-language media, if not in Indonesia itself). Loosely affiliated with government interests, and a harsh critic of the state in the past, the MUI is often engaged in certifying halal products. However, several high-profile environmental fatwas have come out of the agency at the national level since 2010. For example, as mentioned previously, in 2014 the well-publicized ruling was issued by the MUI against wildlife trafficking, called informally the tiger fatwa, was sponsored not only by the Indonesian Ministry of Forestry (Kementerian Kehutanan RI), which posed the "question" to the MUI, but also the NGOs WWF, ARC, Harimau Kita (the Sumatran Tiger Conservation Forum), Fauna and Flora International, along with the U.S. Department of Fish and Wildlife.⁵³ The original aim was to address land concessions as a matter of rainforest protection, but wildlife protection became the conservation focus.

Such rulings are lauded in global media, as was also the case for "environmentally friendly mining" fatwa first issued on the national level in 2010 in by the MUI. In 2016 a national fatwa on forest burning and haze smoke on the part of MUI was announced, one that echoed previous regional declarations from the MUI at the provincial level such as the one in Kalimantan from 2004. The tiger fatwa, however, is an example of a fully international attempt at mobilizing Islamic religious response, evidenced in how its process of procedural development focused on wildlife protection (trafficking in endangered species) in line with the objectives of conservation NGOs that supported it. It contains a clause that new concession permits should be officially reviewed, which had been the original intent of the edict before committee negotiations with international stakeholders, now found as a short statement many pages into the document. The impact of the ruling had become public messaging (and a similar ruling was issued in Malaysia the following year).⁵⁴

The idea that fatwas function as outreach is not new; modern expectations that they be deployed as political leverage and even mobilization is a point made by other scholars of Islam in other contexts.⁵⁵ In the case of Indonesian Muslim environmentalism, such a process is documented in Indonesia going back decades. A report, over a hundred pages long,

published in 1997 by the Ministry of the Environment, the Ministry of Religion, and the MUI, *Islam Dan Lingkungan Hidup* (Islam and the environment), laid the groundwork for later fatwas in the context of both environmental education and outreach.⁵⁶ About half the work does not concern Islam specifically, but rather describes the science of environmental crisis and the importance of addressing it with sound policy and environmental ethics. The three chapters that follow are about Islam: “The Islamic Perspective on the Environment,” “The Ummah’s Duty (*Kewajiban*) to Protect the Environment,” and “Environmental Education for the Islamic Ummat (Community).” The first two of these draw heavily on explication of Qur’anic verses, compiled thematically according to headings such as “Humanity’s Responsibility to the Environment” and “Do Not Corrupt the Earth,” and it is probably not a coincidence that these are presented in a form that is well suited for preaching a public sermon (*khutbah*) on the topic. Later sections on responsibility carry thoughtful interpretations of the application of ecological concern and environmental justice within various religious, social, and environmental contexts. Most of the book’s specific recommendations appear in chapter 8, coming as a call to establish religious environmental educational programs, along with related suggestions specifically aimed at the *‘ulama’* and other Muslim religious figures, as if anticipating initiatives that were to begin to come to fruition more than a decade later. Here the text instructs Muslim leaders to “make religious fatwas that can give resolve and impetus to the *ummat* (community) to strengthen the tendency to care for the environment in the framework of [Islamic] doctrine and worship.”

Fatwa initiatives in Indonesia amount to a widespread system for imagining, and to some degree attempting to implement, environmental justice on an Islamic (Qur’anic, jurisprudential) basis. The combination of this-worldly and other-worldly reckonings appear within a single framework in such formations. Even for stakeholders without Muslim faith commitments, the extension of ethical authority for environmental justice beyond the secular makes support for these initiatives appealing to promote. This is regardless of the fact that their environmental policy may already be covered by national and international law, and that this “Islamic law” is not enforced, only disseminated discursively.

Nonbinding fatwas bring a moral authority to bear on environmental justice and may even carry a practical and activist impetus to draw up

specific measures. The following is an example, a case of an attempt to realize environmental justice with respect to waste management. The fatwa also functions as a commemoration of the environmental dead for the sake of preventing future loss of life. This fatwa concerns a disaster that affected a West Javanese community, killing over a hundred people, as the result of a landslide at a trash dump. From the garbage avalanche in Cimahi, near Bandung, West Java, in 2005, waste materials spread as far as a kilometer from the source, and at an average thickness of that was several meters deep. The introduction to the fatwa concerned, as written by Hayu Prabowo, is as follows:

Awareness of the issue of waste management has grown with the publicity surrounding several major cases of pollution and threats to public health that resulted from the impact of poor waste management that had worsened, especially with the management of refuse at Tempat Pembuangan Akhir [TPA, waste collection areas]. The instances of movements against the establishment of these TPA related to environmental pollution and garbage landslides occurred in several locations [in Java] such as TPA Bantargebang Bekasi, TPA Benowo Surabaya, and TPST Bojong in Kabupaten Bogor. The worst case was the landslide at TPA Leuwigajah at Cimahi [West Java] on 21 February 2005, which claimed the lives of about 140 people. This was the most devastating disaster to have occurred in Indonesia's history of waste management. It led to the official declaration of Hari Peduli Sampah [Waste Awareness Day].⁵⁷

The fatwa of MUI (no. 47, 2014) is titled "Waste Management to Counteract Environmental Degradation" ("Pengelolaan Sampah Untuk Mencegah Kerusakan Lingkungan"). It cites the commemoration of the victims of the landslide in Cimahi as a basis for measures to prevent a similar disaster from occurring in another dangerous area, the banks of the Ciliwung River, which winds through the center of the nation's capital and global megacity, Jakarta, where it meets the sea.⁵⁸

The fatwa as issued begins with the citation of a Qur'anic verse as well as a hadith, both of these fairly standard in Muslim environmentalist expression. They are translated into English here preserving the meanings that are highlighted by virtue of coming from original Arabic through the Indonesian-language text:



Figure 4.1 Water resource management in a sloped area being developed around Bandung, Indonesia. Photograph by the author.

One verse that may be indicated here is, “Do not carry out corruption [*kerusakan*, Ind. var. of Ar. *fasad*] on the face of the earth, after Allah has set it in order.”

(Q. 7:56)

There is also a hadith of the Prophet (peace be upon him): “Truly Allah (may He be praised) is kind and loves kindness, is clean and loves cleanliness, is great and loves greatness, is good and loves goodness. For this reason, protect the environment [*lingkungan*].”

(Al-Tirmidhi)



Figure 4.2 Water resource management around Bogor, Indonesia. Photograph by the author.



Figure 4.3 Flooding in Jakarta, 2012. Photograph by the author.

The ruling itself translates as follows, concluding with an emphasis on the Muslim community's legal obligation to attend to waste management at large:

1. For every Muslim it is required [*wajib*] to guard the cleanliness of the environment, to make use of things for the public good [*kemaslahatan*], as well as to avoid committing harm [*penyakit*] such as waste [*Ar. tabdzir*] and squandering [*Ar. israf*].
2. To throw away garbage in any place and/or to throw away items that may still be used, whether by oneself or another, is hereby declared haram.
3. The government and business entities are required [*wajib*] to manage waste by way of avoiding destruction [*kemudharatan*] of living creatures [*makhluk hidup*].
4. To recycle waste into items that may be reused improves the prosperity of the community [*umat*] and is hereby designated to be a legal responsibility

incumbent upon the community as a formal legal ruling [*hukumnya wajib kifayah*].⁵⁹

Next comes a detailed administrative proposal for waste management in order to protect the community from another disaster, which comprises the main body of the ruling.

The fatwa coordinates local assessment, “green financing,” and an implementation plan for a proposed waste disposal program at the Ciliwung River. This level of programmatic detail is somewhat unusual, even for this sort of modern proclamation, and especially so when viewed in historical perspective. Planning and development paradigms here meet with a framework of Islamic law and policy on management, including specific sources of program funding. At the same time, it also represents a commemorative response to loss of life through the “slow violence” of environmental disparity, addressed through a range of forward-looking measures to safeguard communities in the future. Politics, activism, and planning combine here with respect to religious environmentalism and matters of justice that are seen and unseen in light of Qur’anic injunctions to “stand up for justice” in and for community.

Environmental equity and justice, fundamentally Qur’anic concepts, are also expressed by the ways in which environmental issues are cast as inherently moral in popular messages that are Islamically religious as well as secular. Islamic law is one religious solution to address the shortcomings of human ethics as well as parallel civil systems in modern public discourse about the environment. This leads to a revitalization of Islamic law as environmental, as well as new forms of Muslim legal public reasoning, or environmentalism, that shape an ethical understanding of what the environment is with respect to human-caused crisis. The religious dimension allows the unseen world of consequence, such as the reckoning of the dead, to be relatable as an issue of environmental justice with practical measures for this world.

* * *

Discussion of law and ethics has progressed in this chapter through ontologies (a key concern of Anglophone environmental ethics as well as the Qur’an), adab as ethics, `ibadat and embodiment, rulings on creatures and resources like water (with implications for rights), systematic fiqh and its

classical and modern rationales, and, finally, expansion of Islamic law as a contemporary environmentalist apparatus for influencing social ethics and political commitment to environmental justice. Throughout all these interconnected discourses, Islamic systems of jurisprudence and ethics possess a quality that secular and nonsecular environmentalisms seek to rationalize, namely, a robust correspondence of cause and consequences that encompasses all human and nonhuman relationships, connecting them across the past, present, and future.

The Qur'anic imperative to seek justice in this world for the sake of the judgment to come takes a highly social form with respect to this-worldly social justice and care for the marginalized and oppressed, such as "the orphan," mentioned many times throughout the text. Islamic jurisprudential and ethical norms represent an autonomous and coherent environmental framework as an authoritative treatment of justice and resources, offering specific as well as general guidance for individuals and communities. This engages directly key ethical discussion in environmental humanities, including environmental justice, "rights-based" approaches such as legal frameworks, ontologies of environmental personhood significant in other social-ethical frames, and the postcolonial politics of equity, capacity, and sustainability. With new projects to develop Islamic environmental law, Islamic messages of environmental justice and ethics coexist and even combine with cognate, or even identical, nonreligious messages (such as those of science and public policy).

Many secular and non-Muslim agencies actively attempt to extract and enlist resources from Islamic tradition to deliver authoritative environmentalist messages to Muslims. Across religious and nonreligious spheres, there is something of an informal consensus that Islamic outreach will be effective as the solution to environmental crisis for Muslims—even when complementary approaches will not. Such confidence persists despite the absence of proof or even any particular evidence to indicate that this would actually be the case. Nevertheless, a widespread conclusion is that human-caused environmental problems originate with a lack of moral-legal leadership, and that ethical messages may therefore be more effective than non-normative ones in addressing whatever is viewed to be the crisis at hand. Examples in this chapter demonstrate that, as the perceived *religious* solution to a *moral* problem, Islamic messages are thus expected (by Muslims and non-Muslims) to persuade hearts and minds in the face of the

perceived failure of alternative globalized systems (perhaps even other Muslims ones). The latter are observed by NGOs and others to be too readily ignored or circumvented when presented merely as civil policy, statutes of the state, recommendations of international agencies, or the world's scientific communities.

Notions of social and environmental justice that circulate in the modern period, whether supported by states and agencies or otherwise, draw on a Muslim paradigm of revelation on a phenomenal scale, on the one hand, and include specific guidelines for Islamic environmental law, such as traditional norms for water resource management, on the other. Modern attempts to formalize and enforce rulings on ritual and transaction further enroll colonial and postcolonial Muslim social theory through rationalized aims of the law and ideals of the public good. Both ethical and jurisprudential thought regulate a notion of the environment by expressing a relation of cause and effect, recognizing that ontologies and responsibilities of this world connect to the world to come. Viewed historically or contextually, this represents a practical ethics that shapes notions of what is the environment.

As with any religious system, Islam provides expanded epistemological frames for this practical ethics, taking notions of justice to ontological levels exceeding Anglophone secular theory, such as privatized moral sentiments like wonder, and articulating these as a foundation for emerging environmental ethics. It is precisely the symbolic area of Islamic law extending outward to ultimate frames that makes it presumed to be effective by NGOs and others, despite its lack of real-world enforcement or any sincere Islamic religious commitment on the part of non-Muslim promoters. Beyond expanding relations like "rights of nature," religious law affords a view of creatures that are all called to account together for their relations, according to clear criteria and consequences. For example, the earth herself takes on a voice in the Qur'an in surah 99. Conceivably, the relationship formed by horizontal and vertical connections may also include technology, the unnatural, and even the virtual to be environment.

Anthropocentrism is what is usually taken to be the central problem in Anglophone environmental ethics. What is in fact a human-centered model for ethics emphasizes responsibility as well as interspecies limits without singling out humans to be ontologically privileged creatures. As much as the Qur'an expands ontological and ethical frames across space and time,

Islam teaches the limits to human exploitation of the earth, as well as human knowledge about it, whether in metaphorical or material modes. The next chapter complements norms of legal and ethical limits to consider Islamic disciplines of science, knowledge, and expression, which structure human relations to the unseen and the unknown. As emphasized in present-day environmental humanities, to articulate these expansive dimensions is necessary in order for the environment to become imagined at all, not only as a frontier but also as a necessary apparatus for understanding threats like climate change. As in the case of law, however, here too there is systematicity from the perspective of the academic study of Islam. Muslim frameworks of both traditional and modern environmental science, tied closely to ethics, represent an empiricism in scientific and religious ethics with respect to determinism and indeterminacy. This represents forms of knowledge that, however certain as they may be, are also ambivalent and even ambiguous in their symbolic reality.

FIVE

Islamic Humanities

Apprehending Symbol, Expression, and Natural Science

QUR'ANIC STUDY AND the related traditions of science, philosophy, and art in Islamic religious systems create correspondences between seen and unseen environments, blurring the lines that distinguish between the empirical and the imaginal. Through a religious stance, like with enduring assumptions of moral accounting and ultimate consequence, these areas automatically convey ethical dimensions that comparable intellectual systems only engage when a dedicated effort is made, such as when European tradition has been limited to the *human* in humanities. Drawing such conceptual, aesthetic, and ethical connections within and among systems is the constructive and critical work of the environmental humanities, however. The symbolic realm of consequence that bridges these dimensions in Muslim environmentalisms is also the same one that contemporary environmentalists often seek in order to leverage for convincing public messages. The theory and practices that carry out the humanistic work linking empiricism (experience, science), art and imagination, and moral consequence have long been developed in Islamic systems, and in identifiably environmental registers. Relevant to a new field of environmental humanities today, this represents the sort of symbolic mode now being developed by scholars to apprehend present and anticipated conditions like species extinction and climate catastrophe.

Muslims' production in science and philosophy was in fact a direct precursor to European humanism, now a shared heritage of the fields of

religious studies and environmental humanities. The legacy of Muslim-majority systems that transmitted and enhanced Greek sources includes also the disciplines of natural science, like earth science and biological sciences that represent the disciplinary origin of environmental sciences today. In much the same way as an academic survey course in Islam or a recent work like Shahab Ahmed's *What Is Islam?* adopts the register of the liberal arts to view correspondences of symbolization across science, literature, and religion that are identifiably Islamic,¹ this chapter does the same for committed stances toward the environment called Muslim environmentalisms. As in Ahmed's work, the present discussion is constructive as well as critical, applying tools of the history of religions to arrive at both comparative categories and critique. Adopting the phrase *Islamic humanities* (after environmental humanities), these denote a cultural field of expression with respect to aesthetic or intellectual tradition; as Ahmed has posed, for example, this could be distinguished from the intertwined European humanities, which has been invested in "Western civilization" and its postcolonial and post-Christian extensions. Of course, an unqualified humanities would comprise all this, another step away still in construction and critique. The history of the liberal arts is thus doubly salient for the present discussion: first, for its development in the past, with direct continuities into the present; second, as a genealogy of sources on which messages (humanistic, scientific, Islamic, environmental) still attempt to draw with strategic prestige in order to construct authority in variable, postcolonial modes.

The first section of this chapter considers classical or medieval sources on symbol and metaphor within the Muslim tradition of empirical knowledges about human-world interaction. This comprises the writings of foundational figures in philosophy, a cadre of interlocutors interacting across space and time, such as Ibn Sina (Avicenna, d. 1037), Al-Ghazali (d. 1111), and Ibn Rushd (Averroes, d. 1198). Some of their texts were widely influential Atlantic to Pacific, some not so much, and a few became better known across Christian Europe than elsewhere in Muslim-majority areas, where law (fiqh), dialectical theology (*kalam*), empirical sciences like medicine, Shiite thought, and Sufism (*tasawwuf*) formed the wider intellectual contexts of philosophical pursuits. Although formal philosophy, representing the realm of the elite, had a lesser intellectual influence overall than did law or Sufism (both of which have philosophical dimensions), the basic conceptual tools developed by Muslim philosophers cross-cut fields of religious

and nonreligious sciences. They are formative in Muslim intellectual traditions, if not also European ones, that would, for example, recognize the significance of Aristotelian theory and method or demonstrate Neoplatonic tendencies. And, some of the works did indeed become integral to Islamic religious thought and practice across Africa and Asia, impacting understandings of Qur'an and applications of practices of piety.

Discussion here treats material from classical Muslim literature and art to explain how both real and imagined life-sustaining worlds correspond through dual modes of empiricism and accountability. This examination begins with the field known as Islam *and* science, particularly focusing on how the natural sciences are moralized, such as with an esoteric tradition that would represent a basis of empiricism in alchemy as well as the "sciences of the soul." Analysis turns then to explicitly environmental material as in contemporary systems, treating global Muslim presentations of environmental sciences that are an extension of the classical Arabic and Persian tradition. Always relevant to this is Qur'anic expression that links ethical and empirical levels of environmental phenomena, including the social and moralized interpretation of natural environmental change (like disaster). Finally, complementing this is a look at how science itself is deployed in its symbolic dimension for Muslim environmentalist outreach. As in the environmental humanities today, this involves recognition that apprehension of a reality like climate change requires ethical and future-imaginal faculties being brought to bear to render hard scientific facts.

While Muslim worldviews vary widely, the structural connection between the seen and unseen, evidenced in previous discussion by Qur'anic and legal systems that are premised upon eschatology, for example, allows for acceptance of and reflection on questions around the "out-of-sight" and the indeterminate that are at the heart of human experience of the environment.² This is inarguably the case for the mainstream environmentalist movements of the past half-century, which innovated the concept of the environment in the context of developing "awareness" of challenge and crisis, along with new capacities to connect selves and the world (as in deep ecology). Secular and post-Christian systems, including environmental humanities, still strive to articulate the unseen and the unknown as environmentalisms in an ethical field dominated by positivism. Across multiple fields, from a unique global history of science to community-based and regional local knowledge, and through a projective encounter with present and future apocalyptic reality

as known in the Qur'an, religious Muslims express environmental realities through shared Islamic frameworks. This may be viewed as a function of the working of religious and scientific symbols, famously articulated by pragmatic theorists like Clifford Geertz and John Dewey in American theories of religion during the past century that link seen and unseen, experience and social meaning, present and potential, ethos and worldview.³

Categories of symbol, allegory, and metaphor have been developed for decades in humanistic fields like comparative literature, history of religions, and cultural anthropology, all of which have a legitimate claim to starting the environmental humanities (in and before the aughts), such as with a new ecocriticism, with each strand pointing to a rigorous and distinct disciplinary and analytical approach. Explorations of the workings of symbol characterized humanistic study across the twentieth century; for example, in the field of religious studies, American phenomenologists of ethics and cultural performance like Clifford Geertz and Victor Turner and European psychologists like Sigmund Freud and Carl Jung theorized symbol and experience. By the second half of the twentieth century, a vocabulary, generated by these thinkers, still informs humanistic study and criticism of the cultural symbol in the academic study of religion and across other fields.

In Islamic humanistic traditions, academic subjects like rhetoric (*balaghah*) and soul-sciences (*tasawwuf*) have similarly rigorous and disciplined terminology for these concepts that go back centuries, some of it developed in the context of the Arabic study of the Qur'an. An insight that cuts across all these terms for the symbolic is that the phenomena expressed, whether through ritual or art, science or esotericism, simultaneously share in real and imaginal dimensions. This is a foundational point in treatments of myth and symbol in the academic study of religion (such as that of Mircea Eliade and Paul Ricoeur), and it is increasingly an aspect of the study of the history and anthropology of science as well (Bruno Latour). Like Rachel Carson's American environmentalism, Islamic systems do not separate "real" and "wondrous" expressions of the natural world into different dimensions. And, starting with the Qur'an's many injunctions to reflect on the natural world, the empirical and ethical are not divided into environmental study on the one hand and environmental experience and praxis on the other.

From Muslim religious perspectives, the apprehension of God's life-giving creation, such as the horizontal and vertical commitments fundamental to environmental teachings examined in previous chapters, connect multiple

sciences and expressions of the seen and unseen. Muslim scientists and philosophers like Al-Ghazali have in fact long related religion and science along a well-defined continuum of knowledge, all as *`ulum* ("sciences"), and in many cases these drew systematic, hierarchical, and data-driven correspondences formally between such religious and nonreligious "knowledges." As Al-Ghazali argued in *Deliverance from Error* (*Munkidh min al-Dalal*), technical fields like mathematics were useful yet limited in their capacity to answer questions depending on what was being asked. For example, this text begins by dispensing with the uses and limits of mathematical knowledge in his treatment of the coherent and multilayered nature of science (*`ulum*), certainty, and experience. The "error" from which to be delivered was not only doctrinal heterodoxy, but the expectation that tools of science and logic alone, while necessary, would be enough to achieve religious and ethical goals.⁴ Science and religion were thus not in categorical opposition until European colonial contact, when these became identity markers vis-à-vis conditions like imperialism, modernity, and progress.

Art and science in Islamic humanities represent a natural expression of seen and unseen environmental dimensions through foundational empiricism, the result of being underscored in every context by Qur'anic teaching, like the constant and ultimately authoritative rhetorical demand to "ponder" and "reflect" on the natural world. Furthermore, for the present discussion, such experiential metaphors of both science and art are the very same material that contemporary programs seek to develop instrumentally, as in conservation practices like *hema* and *harim*. Thus, in humanistic registers from law to music, science to theory of perception and experience, contemporary orientations of Muslim environmentalism stand out in the environmental humanities because of their capacity to indicate with ethical clarity the multivalent empirical relation of humans to environment, and especially now with respect to processes of transformation toward undetermined and precarious environmental futures.

Islamic Humanities: Allegories and Ontologies of Environmentalism

Symbol, allegory, and metaphor function to link real and imaginal registers. Academically, many have claimed that not only do symbols or

metaphors constitute social and cultural systems but also that they are inherently ethical.⁵ Moving to Islamic humanities, the Qur'an's expression is full of moralized examples or "similitudes" (*amthal*), which it "strikes," along with signs (*ayat*) and other indications (*isharah*) that blend these dimensions within rhetorical modes, themselves an object of rigorous academic study. The text itself calls attention continually and self-referentially to the power of such signification, as in Q. 18:54, the surah called "The Cave" (Al-Kahf), "We [God] have indeed given to humankind in this Qur'an every type of example (*kulli mathalin*)."⁶ When its rhetoric takes the form of parable, Qur'anic allegory conveys an explicit didactic message (like that of "the blighted garden" in the same surah, Q. 18:32–44). Similes are another self-referential rhetorical mode in the Qur'an, as in the verse also in the same surah, Q. 18:45, on water: "And give them the simile (*mathala*) or the present life; it is like the water We send down from the sky; then the vegetation of the earth (*al-ard*) is mixed with it, and so it becomes straw which the wind scatters. Allah has power over everything." In the Qur'an's system of signs, these root Qur'anic metaphors are concrete as well as representational and ideational. In context, they extend palpably and ethically from this world to the next, seen to unseen.

The theory of symbol as it has been developed in religious studies (Jung and Eliade on archetypes, Freud and Ricoeur on narrations of the psyche, and Geertz even specifically on global comparative Islam) views symbols as experientially real and also as embodied expression of another order. This dual nature of the symbol has been central to theories of religion itself, to the point of being definitional of religion, as in Geertz's own famous five-part formulation in his performative and sentimental interpretation of Indonesian ritual.⁶ "Experience-near" American theory of religion in this key typically poses some practical mechanism (ritual, law, art, politics) by which transcendent ideals are rendered into social or psychological structures (for both Clifford Geertz and Victor Turner, this is unambiguously affective "symbol" in performance). These draw on loosely Protestant assumptions about the transformative authority of experience. They also resonate with older and diverse Christian positions and polemics about a religious symbol's real presence (both East and West, and Catholic and Protestant), since historically religious theory of symbol has constituted formative Christian identities through confessional creeds about icons and hierophanies (such as in Orthodoxy with John of Damascus), the transformational process of

ritual like the Eucharist (medieval Roman Catholic doctrine as well as early Protestant orientations), and of course the nature, person, and divine representation of Christ (a central concern of patristics represented by church councils such as Nicaea and Chalcedon).

Classical Islamic theory for the religious symbol is more ethically robust than present American folk and academic theorization of symbol for religion because it accounts for the moral dimensions of symbols (which Geertz struggles to do awkwardly, for example, in the central part of his “Religion as a Cultural System”). An ethical dimension may readily be taken for granted in a religious system, but there is not always an explicit hermeneutics to connect the moral to the material as provided by classical Muslim scholars like Ibn Sina. Empiricism, across fields of multiple Muslim liberal arts, applies to the phenomenal world as well as undetected yet powerful transformations and even unknown phenomena and symbolism. These fundamental dimensions of environmentalism now connect to current major issues in environmental humanities as ethical problems of science and the capacity to address crisis beyond human control.

Early and influential voices in Islamic religious thought elaborated empiricism as a dimension of the formal phenomenology of the symbolic, whether tangibly manifest (*dhahir*) or subtly unseen (*batin*). A classical scholar like Al-Ghazali, who was neither a mystic nor Sufi in the sense of identifying with a “way” of a teaching (*tariqah*), but nevertheless esoteric as well as piously analytical in outlook, renders a sophisticated epistemological theory of experiential knowledge in his works. He contextualizes practical and utilitarian reason, claiming that conventional notions of technical science are one of many modes of rational knowledge.⁷ By connecting modes of symbolic expression in aesthetic, scientific, and religious systems, representative Muslim thinkers like Al-Ghazali developed rigorous methods for classifying, explaining, and developing human relations to the phenomenal world. Such systematizations are comprised by both the environmentally seen and the unseen.

For example, in *Niche of Lights* (*Mishkat al-Anwar*), an extended illuminationist reflection on the Qur’an’s Verse of Light (Q. 24:35), Al-Ghazali offers a discussion of symbolism along with a formal theory of semantics and simile. Typical also of his approach in less directly esoteric and far more popular works, such as the massive compendium *Ihya’ ‘Ulum al-Din*, which became standard curriculum worldwide, he classifies his discussion in terms of an

inward form and outward form. Similar in binary articulation to a Geertzian “model of” and a “model for,” or ethos and worldview, a latent theory of religion in *Niche of Lights* identifies the correspondence of two worlds, the spiritual and the material (*dhahir*, *batin*), to coexist along an empirical continuum of sense perception. Al-Ghazali begins his explanation of these with principles of the general science of optics, echoing work of earlier philosophers like Al-Kindi (d. 873) as well as the scientific advances being made at the time by Muslim physicists including Ibn Haytham (d. ca. 1040).⁸

In *Niche of Lights*, Al-Ghazali develops an empiricization as well as moralization of the phenomenal world, trained on symbols’ transformative capability, and for this he starts from the blended perspective of spiritual, Qur’anic, and physical sciences, which represents an approach used elsewhere across Muslim environmental theory and practice in medieval period. At the start of the text, Al-Ghazali introduces levels of light along a continuum from that of being an optical phenomenon to one of expressing a subtle spiritual reality. These are stratified in a hierarchy of human capacities for understanding, a standard scheme for phenomenological subjectivity in Islamic religious texts, through which the varied dimensions of a multivalent object are defined by the observer’s capabilities of perception. It also represents a socially categorical exclusivity that is typical of Sufism’s esotericism, also prevalent in philosophy, law, and other interpretive fields of Islamic knowledge.⁹

The subject matter ranges in form along a spectrum of homologous expressions that advance progressively from grasping bluntly technical, scientific, or semantically literal definition up to levels of more subtle, learned, and insightful interpretation and explanation. (Typically in esoteric texts, as here, the final level is left unwritten as a “secret.”) In Al-Ghazali’s introduction, he begins with the point that, where a concept like light is treated in the esoteric fashion (*batin*) as opposed to what is apparent (*dhahir*), the object of study itself is thus determined by the capacity of the scholar to apprehend it. After scriptural invocation of Q. 24:35 (the Verse of Light), Al-Ghazali opens exposition in *Niche of Lights* in the first sentence by writing about stratified levels of understanding: “This [theme] is clarified through coming to know the meaning of the word ‘light’ in the first sense of the term, following the common people; then in the second sense, following the view of the elect; then in the third sense, following the view of the elect of the elect. You will then come to know the degrees and reality of

the mentioned lights that are ascribed to the elect of the elect.”¹⁰ The last part of the work structures knowledge exactly around these groups.¹¹ All these, from technical scientism to subtle truth, are subjected to “reason,” which may also require differing aptitudes as well as modes of experiential knowledge to verify with certainty.

Al-Ghazali next categorizes the phenomenon (“light”) itself as being of two general forms: material and what might be called symbolic. He further defines the object, light, in terms of graduated levels of subtlety corresponding to the human capacity to apprehend (not, significantly, to produce) these meanings, both scientific and moral. First in Al-Ghazali’s treatment, light is a phenomenon subject to perceptive faculties. He asserts that this phenomenon is expressive (not receptive), insofar as light is visible, and that it also makes other things visible, namely, the condition that is “light” is dependent on a source of light *and* its perception by the seeing eye. His most elementary point here is “light consists of that which is seen in itself and through which other things are seen, such as the sun.”¹²

Discussion next shifts to the faculties of the “seeing eye” that determine the degree of subtle light perceived. Al-Ghazali claims that of these there are really two kinds of eyes, internal and external, with the internal eye being the one that is actually better able to see and the only one able to receive any nonphysical light.¹³ This analysis progresses eventually to the subject of ultimate understanding, “in order that it may be disclosed to you, as these grades become clear, that the only true Light is His light.”¹⁴ As the source of light, there is nothing further behind divine illumination. Furthermore, humans never become a source of light on their own accord; they do well not to obstruct or “veil” the emanation of light and possibly to perceive or, better even, reflect it (this relates to a debate, also in the field of optics not to mention philosophy, going back to Aristotle).¹⁵ The assumptions of this excursus are typical of Islamic humanities that blend “seen” and “unseen” dimensions of an environmental phenomenon like light, categorizing it by variable assessments of human moral capacity. No matter how far the metaphor or allegory extends or with whatever environmental field it blends, discussion never loses sight of the commitment to an empirical and experiential science (*ilm*).

In traditions of Muslim environmentalism, key symbols like water and animals that are prominent in the Qur’an and in foundational fields of natural sciences as well as Muslim expressive arts integrate Muslim

environmentalism through theology, law, ethics, and policy, and now also to science and aesthetics, symbol and allegory. This consideration enlists highly sophisticated classical hermeneutics that extend from the systematic understanding of multilayered meanings in the Qur'an's expression as well as interpretive apparatus. Turning now to water, a phenomenon as "environmental" as the photoelectric energy that is light, its treatment here is a key instance of an environmental symbol that is "real" in the sense of physical and biological science, ritual and transactional law, politics, and so forth, but also representing great metaphorical power in Islamic religion. It is one of the most common similes found in the Qur'an. In the text, water's very existence links to religious messages about reproduction, as well as other cycles of life and death, and water is shown repeatedly to be a gift and mercy, from food to transportation, as a sign of God.

Water is one of the most frequently occurring of the Qur'an's depictions of God's signs (*ayat*) in the natural world. For example, it is one of the concrete Qur'anic symbols that emphasize both the regularity of natural phenomena, like the clouds making rain that allows life to flourish, as well as disjunctures and unseen events like the unanticipated destruction of past communities in the floods that destroy the peoples of the Prophet Nuh (Noah) and Pharaoh in the Qur'an. Metaphorically, in the Qur'an water is presented in various forms as a "sign": as seas (fresh and salty), rivers in this world and the next, rain falling from the sky, biological substance, the agent of purity, and a life-giving element. Water is frequently said to be a blessing or "mercy" (*rahmah*), such as when it falls in the form of rain, and a sign that the dead earth can be revived, just as the dead will be resurrected on Judgment Day. Further, in the text's rhetoric the existence of water in the remade world to come (rivers under heaven's gardens, boiling water in hell) confirm God's promises and warnings in the Qur'an to be true.

Water as a resource is palpably experiential as well as an environmental symbol that points to religious, scientific, and moral truths. For modern messages of Muslim environmentalism, water is a central instance of a moralized environmental resource, not just with respect to the guidelines for its management (as in chapter 4) but also in real and symbolic existence. For example, many environmental educators I met in Muslim religious schools were keen to point out that there is a processual "water cycle" presented over the course of the Qur'an which was replicated on school grounds with wudu' [ablutions] water recycling at the mosque, waste

treatment, and small fish farms, etc. Although the Qur'an classifies sentient beings by the substances from which they were made (humans from clay, angels from light, and jinn usually from fire), a fundamental Qur'anic teaching about all creatures (about which readers are instructed to "think") is that they are constituted by water, as in (Q. 86:5–6): "Now let humanity think from what it was created. A human is created from water emitted;" and (Q. 21:30), "We [God] made from water every living thing."

These symbolic dimensions of the elemental environmental resource water have continuities that resonate in the Qur'an and hadith as well as throughout Muslim folk and cultural tradition. This can reach the level of fully esotericized metaphor, as in the "water of life" in stories about the legendary Al-Khidr (the Green One), material that includes the extended account the Qur'an itself presents in the surah "The Cave," Q. 18:65–82, in which this same "servant of God" (Al-Khidr in tradition) appears to guide the Prophet Moses after he "lost his fish" at the confluence of the two seas. This narrative is a favorite of interpreters who appreciate its gnostic overtones. Oceans (prominent in the Qur'an) are a major metaphor in Sufi thought, including the often-cited passage that ends the same chapter of the Qur'an, 18 Al-Kahf, with a reference to the ink in which the Qur'an's message might be written, its words being so abundant that it would never exhaust even oceans of ink to write them all down, like the "oceans without shore" of Sufi knowledge. Much is made of "purity" (tahirah), achieved in a physical sense through ablutions (which do not carry a moral connotation) and then spiritually in extension to ethicized dimensions, like that of the mystic Ibn Al-'Arabi's (d ca. 1240) writing on ritual law and esotericism, *Asrar al-Tahara*.

Besides water and trees, gardens are other examples of multivalent Qur'anic environmental symbols in Islamic humanities, at once real, moral, and imaginal. This is a metaphorical register of landscapes that is not lost in the most tangible ecological circumstances affecting Muslims, whether in the construction of gardens or the destruction of deforestation, as religious symbolism that corresponds to real environmental conditions. Trees alone, such as the classical "tree of life" (also "trees of knowledge" and "trees of love"), are also key symbols in religious philosophy; in the Qur'an, the lote tree (*sidrat al-muntaha*) marks the boundary of the human and revelatory presence (Q. 53:14). Even in the hereafter there is a named tree in Hell (that of *zaqqum*) that is mentioned multiple times in the Qur'an. The perfect and

primordial environment as detailed repeatedly in the Qur'an is "the garden" (*al-jannah*) that is heaven, signified also as a designed landscape. In the study of Muslim landscape architecture in environmental humanities like art history, the literature on "Islamic gardens" is vast, such as with historical traditions that are especially well documented for the Mughal era in South Asia.¹⁶ Some modern Islamic environmental planning, as in Gulf states, strives to replicate gardens with only plants named in the Qur'an,¹⁷ which also mirrors a common way that "green" values are expressed and received in contemporary global contexts of environmentalism in terms of privilege, leisure, and recreation across globalized models. This ranges in discussions of Anglophone environmental humanities from America's national parks to civic and private spaces built to contrast with the connected urban and industrial landscape, including lawns, golf courses, and the like. These spaces are valued and status-conferring environmental commodities today in the Muslim-majority world as much as they are in Muslim-minority contexts.

Principles of environmentalism recognized through Qur'anically indicated sciences of allegories and symbols extend to the real world through morals, meanings, empirical science and its communication, and related human attempts to grasp and even to transform the unknown. Key Islamic environmental symbols famous in art and literature like water, trees, and animals all resonate empirically throughout the text of the Qur'an as well as the context of Muslims' lived interspecies experience.

Animals in Islamic Environmental Humanities

Perhaps the most developed field for the academic study of allegories, metaphors, and symbols of Islam and ecology within today's emerging fields of environmental humanities is animals.¹⁸ "Good to think with," as in the famous line from *Totemism* by Claude Lévi-Strauss, animals also indicate by inference "what it means to be human," a maxim often identified as the aim of humanistic study overall. In explicitly environmentalist thought, practice, and activism, Muslim and non-Muslim, animals challenge species-centrism, and advocacy on their behalf represents a focus of rights-based liberationist movements. There are at least two recent English-language books on the subject of animals in Islam and the

Qur'an, respectively, both by influential thinkers in the English-language area of Islam and the environment, Richard Foltz and Sarra Tlili. In the Islamic sources on which these works draw, as discussed previously, a central tenet of the ethics of animal treatment is to show mercy to them in imitation of the model of the Prophet Muhammad, for the sake of this life and the next.

Animals, depicted simultaneously as symbols and as real creatures, illustrate how Muslim environmentalisms express a moral boundary of the human capacity to apprehend "the other." Along with enduring issues about the humane treatment of animals both wild and domestic, animals also feature prominently in allegorical narratives in classical Islamic arts and literature, as, for example, in the Persianate tradition extending from Anatolia to India and farther east. Drawing on sources much older, such as Aristotle, animals were long a subject of the natural sciences as originally developed in scholarly systems with Arabic prestige from the ninth century onward. Cross-cutting a variety of Muslim methods and genres, materials treating the zoological, ethical, and metaphorical reality of animals evidence the way in which animals are a core theme of Muslim empirical reflection on the limits of the human world and humanity itself.

The presentation to follow emphasizes how science and ethical worlds combine, moral and material symbol overlap, in characteristically Qur'anic logics across diverse canonical treatments of animals in Muslim historical environmentalism. The discussion progresses from animals in the environmental sciences to their allegorization, sometimes by the same "scientist" authors, to the moralization of human-animal relationships, real and imagined. Finally, the same traditions that evidence a consistently empirical approach also link nonhuman ontologies, and unseen communities, to the human through the root paradigms of Qur'an reading and interpretation. The latter are here illustrated by the Qur'anic presentation of "The Bees," pointing also to expressive themes of contemporary ecological crisis.

Natural history was one of the many fields of Islamic science that developed quite early on in the 'Abbasid era, and Aristotle's work on animals was widely known and studied by the ninth century. Al-Damiri (d. 1405) later produced a widely copied and seminal work, the title of which translates as "The Big Book of Animals" (also called "The Life of Animals," *Kitab al-Hayawan al-Kubra* or *Hayat al-Hayawan*), that contained zoological information, cataloging animals as known in the Qur'an and in Arabic sources. This

work rapidly became the model and benchmark for fields like zoology, wildlife ecology, and veterinary science.

The study of animals shaped early works in Arabic belles lettres. For example, the naturalist and essayist Al-Jahiz (d. 869), ever entertaining, produced his own book on animals (*Kitab al-Hayawan*), which contained much scientific information drawing on Aristotle's model (the *Maqamat* of Al-Jahiz also includes animal stories). His *Kitab al-Hayawan* contained practical advice for environmental management, like how to live with animals. In a comparative essay on how to eradicate flies and mosquitoes found in that work, for instance, he writes that it is easy to rid the house of flies because they "often go out through the gap between the bottom of the door and the lintel." However, he continues, "With the mosquito it is otherwise, for just as the fly has greater power [for mischief] in the light, so the mosquito is more tormenting and mischievous and bloodthirsty after dark. . . . Hence, while it is easily possible to contrive a remedy against flies, this is difficult in the case of mosquitoes."

However, Al-Jahiz here claims to have made a breakthrough empirical discovery, that the "flies" had really been eating the mosquitoes, since when "[the servants] cleared out the flies and shut the door as usual, and on my coming in to take [my afternoon nap] I saw a multitude of mosquitoes." Finally, the story ends with Al-Jahiz conducting his own hypothesis-driven experiment:

Why should not I try today the effect of leaving the door open? If I sleep three days with the door open and suffer no annoyance from the mosquitoes, I shall know that the right way is to have the flies and the mosquitoes together, because the flies destroy them, and that our remedy lies in keeping near us what we used to keep at a distance. I made the experiment, and now the end of the matter is that whether we desire to remove the flies or destroy the mosquitoes, we can do it with very little trouble.¹⁹

Al-Jahiz has found the solution to his problem of human-animal interaction in the form of "environmentally friendly" pest control (just open the door and let the flies back in). His investigative rhetoric expresses a replicable environmental science in a charming literary mode, but also as it was developed formally by Muslims, to the extent that some scholars have claimed that the empiricism itself was the Muslim achievement in enhancing knowledge from Greek sources. Al-Jahiz the litterateur, of course, also

has added in his text a moral that comes with the conclusion to the story: "Our remedy lies in keeping near to us what we used to keep at a distance."

Much Muslim literature about animals represents moral allegory, as in Aesop's fables, which were themselves well-known in "the Muslim world," disseminated across diverse cultures and regions. The beloved tale *Kalila wa Dimna* is a famous example of a cycle of stories about animals that Muslims have long circulated across western Asia and adjoining regions. The Platonic thinker Shihab Al-Din Al-Suhrawardi (d. 1191, called the "master of illumination," *shaykh al-ishraq*, because of his famous mysticism of light),²⁰ for example, took animal stories to an esoteric metaphorical level with allusions (*isharat*) about animals, including insects such as ants, and especially birds. The great philosopher Ibn Sina had already allegorized birds long before Suhrawardi's time in his *Risalah at-Tair*. Suhrawardi's writing on a journey of a flock of birds is often cited as a direct model for Farid Al-Din Al-'Attar's (d. 1221) highly influential Persian-language work of mystical allegory, *The Conference of the Birds*, which was composed a generation later.

In *The Conference of the Birds* (*Manatiq al-Tayr*), Al-'Attar typecasts characterizations of birds as spiritual psychology. A small-pond duck, a vain peacock, and many more serve as allegories of moral proclivities and challenges. Its dramatic story line of voyagers on a spiritual path depicts the flock of brave birds traversing the landscape under the guidance of the Hoopoe (also the Qur'anic companion of the Prophet Solomon).²¹ Animals were freely allegorized by other contemporaneous Muslim spiritual figures, such as Jalaladdin Rumi (d. 1273), who, in the course of presenting folktales as spiritual parables in his poems and in the *Masnawi*, often depicts animals as key symbols for parts of the self. For example, in Rumi's writings, as well as other literature, a snake or dragon is the base instinct or *nafs*; whereas a bird is the "soul," seeking freedom even as it may play dead to its captor in order to be released from a cage.

Much of the philosophical allegory written by Muslims in Arabic and Persian that involves animals represents environmental philosophy with respect to themes like humanity, nonhuman beings, justice, and interspecies experience of the phenomenal world, both seen and unseen. Folklore also may function the same way, and even more directly, culturally speaking, through its varied genres of story, verse, and song. Across aesthetic expressions, whether deemed "high" or "low," one could read for a kind of nature concept in the sources, implicitly or explicitly, through the contrast of the



Figure 5.1 *The Concourse of the Birds (Manatiq al-Tair)*, illustration ca. 1600 by Habiballah of Sava. Detail of Folio 11r. Metropolitan Museum of Art, Creative Commons License. <http://images.metmuseum.org/CRDImages/is/original/DT227736.jpg>.

“natural” states of animals over and against human “culture.” Expressing a key theme of environmental humanities as well as classical Muslim philosophy, the widely known literary tradition consistently presents the natural world of animals as a primordial state, as the opposite of civilization. This, for example, is the case with the character Majnun in the epic by Nizami Ganjavi (d. 1209) of real and allegorical love and longing for the beloved, *Laila and Majnun*. The protagonist, Majnun (Qays), reverts to a state of nature after rejecting all relations within the social world. With Majnun’s ascent/descent into the reality of love and separation, his human companions are replaced by the creatures of the forest at the turning point in the story, and he acts like a peaceable guide for his consorts, now wild beasts.

Another famous example of the theme of the primordial “state of nature” in Muslim humanistic religious thought is the highly influential twelfth-century work of natural philosophy by Ibn Tufayl, *Hayy Ibn Yaqzan*.²² This is a narrative in the story genre of an individual stranded alone in a “wild” landscape (in this case alone on an island). Across the Arab and Persian Islamic humanities, humanity is sometimes referred to as the “talking animal” of creation, as it has the capacity for speech. Furthermore, the capacity to “name,” as conferred on Adam in the Qur’an (Q. 2:31, for example), is what apparently distinguishes humanity from other beings, including angels, jinn, and the various sentient animals of creation that appear in the Qur’an.

One philosophical work on the topic of animals invokes soteriology and cosmology that explicitly questions the ethics of anthropocentrism. For this reason, it is well-known in English-language environmental humanities, even though it is in fact somewhat obscure in Muslim traditions. A lengthy treatise, *The Case of the Animals Versus Humanity Before the King of the Jinn*, captures the moral ambivalences of animals with respect to humans.²³ It is “epistle” (*risalah*) no. 22 of a fifty-two-volume work (or possibly fifty-one volumes, if the final volume on talismans is not authentic) dating to around the end of the tenth century. It is attributed to a rather marginal and elite circle of Baghdad, the Brethren of Purity (a group on whom environmentalist Seyyed Hossein Nasr’s early work focused, not uncoincidentally).²⁴ Much of the treatise depicts different species and classes of animals speaking up in turn in the courtroom of the jinn-king. They testify about their qualities, natures, and merits as a part of a complaint against humans.

Humanity's unjust oppression of animals is detailed in the text in strings of examples of environmental injustice brought on by human qualities such as aggression, ignorance, greed, and arrogance. Humans counter these claims in the text, often not very convincingly.

What actually the goals were of the brethren writing the treatise is not clear from the documents—these might have included anything from promoting vegetarianism, to forwarding a claim that the special knowledge of esoteric reality is the only path to salvation (on the part of any creature), to asserting theologically the unique role of humans (and philosophically adept ones at that) in accessing such knowledge, or the treatise may simply represent an enjoyable fable about talking animals (or possibly any combination of these). If one takes the moral of the story to be that animals are on the same side of the clear ontological divide of Creator and created as are humans, like the ecocentric perspective of Sarra Tlili in reading the Qur'an, then the abrupt ending to *The Case of Animals*, in which humans' ethical responsibility apparently is above and beyond that of the animals, becomes all the more striking. The nonanthropocentric interpretation of this message, to reiterate Tlili's argument, would be that animals worship Allah with no choice; whereas humans have the choice and will be judged on that criterion. Therefore, humans have an extra responsibility themselves to be just, including to animals.

It is not just the unique versus nonunique qualities of humanity but also the very boundaries of the human that are suggested by the way in which Muslim literature in western Asia and its extensions depicts nonhuman/human relations. In Muslim folklore, from the Pacific to Atlantic, birds often are cast in a zone close to humans because of their intellect and speech, yet separate from humans as well. In maritime systems like Muslim Southeast Asia, sea beings and aquatic creatures like crocodiles and underwater queens are additionally significant for proximity to humans in storytelling, including genealogical accounts from royal chronicles across the Java Sea, Cambodia to Singapore and Sulawesi. Birds feature prominently as didactic symbols in allegorical Sufi stories all over the world. Examples of near-to-human birds across Muslim literary and cultural global mainstream are the Hoopoe (*hudhud*) who helps the Prophet Solomon in the Qur'an (Q. 27:20), the prophet depicted as being close to animals and natural processes in the Qur'an overall (knowing the speech of animals, commanding the wind). In multiple regional traditions, parrots are a special

class of birds that talk, and talking is what gives them a narrative function in a work like *The Parrot Book* (popular in Muslim South Asia), as well as in other collections such as *A Thousand Nights and a Night*.

Just as in the flight of the “Thirty Birds” across the seven valleys in ‘Attar’s *Conference of the Birds*, birds also symbolize a transcendence and a freedom in Islamic humanistic expression and thus Muslim environmentalisms. However literal or esoteric, expressions of the metaphor return religious readers back to the multivalent text of the Qur’an. Birds are a sign of Allah in the Qur’an, as when the Qur’an points to their “wings outspread” as a form of worship (Q. 24:41), when the Prophet Jesus brings a bird to life through the power of Allah (Q. 3:48, 5:110), when the Prophet Abraham witnesses birds coming alive to fly to him at God’s command (2:260), and when, in the chapter of the Qur’an called The Bees, readers are instructed to look at the birds in the sky and asked, rhetorically, what power it is that keeps these birds aloft (Q. 16:79). In verse Q. 6:30 birds are specified as communities, with a canonical environmental verse that reads, “There is no animal on earth, nor a bird that flies on two wings” that is not part of an *ummah* (community), just like the reader’s own human communities.

Qur’anic symbols of animals occupy the scientific arrays of naturalism, the ethical spaces of law, ideals of “goodness” and “beauty” (*ihsan*), as well as unseen moral dimensions, including the Qur’an’s apocalyptic teachings. Rhetoricians studying such expression of the Qur’an as Ibn Qutaibah (d. 889) demonstrate with rigor that the Qur’an’s metaphors are at once symbolic and real. They even cite this as evidence of the text’s inimitability in connection to the doctrine of the Qur’an’s “miraculous” nature (*i`jaz*). In at least one case in the Qur’an, however, animals are not just “signs,” “symbols,” or “creatures,” or even producers of beneficial resources, but also beings apparently receiving revelation, just as do human communities. This textual instance relates to the bees, in a passage that is historically considered to be a challenge to the presumptions that humans and nonvisible beings, angels and jinn, would be unique among creatures in receiving such divine “inspiration.” From an environmentalist reading, as represented by the medieval commentators to be discussed in this chapter, the empirically and scientifically real dimensions of the passage of Surat al-Nahl was also both striking and convincing. This may be all the more the case today among Muslim environmentalist readers, given that it is widely publicized that colony bees are a species whose status is threatened with collapse.

Many verses of the Qur'an mention insects like spiders, ants, flies, and termites. With characteristic Qur'anic rhetorical irony, these tiny animals often illustrate their great importance or of the profound truth they may indicate in spite of their very smallness and even their invisibility to humans (as in a simile of a fly, Q. 22:73). The Qur'an itself states that no example is too insignificant for the knowledge of Allah, who is the knower of the unseen (Q. 6:59), for example, in the case of the house of the spider (Q. 29:41, in the chapter whose title translates as "The Spider"). Small animals are powerful, for example: termites finally disintegrate the staff of the deceased Prophet Sulaiman, all that was left to hold together the moral order in one episode (in Q. 34:14).²⁵ The example to follow illustrates a theme of Islamic doctrine for secular environmental humanities, which is to call explicit attention to the presence of the unseen and undetected in the external world as empirical realities with a designated moral authority. It also shows how those nonhuman realities may form "communities like you," just as environmental science would represent them as an aspect of the ethics and ontology of the shared phenomenal world.

The first verses of the Qur'an's chapter, 16 Al-Nahl, were presented in chapter 3 as an example of the rhetoric in the Qur'an that invokes the multivariiegated physical world, and animals specifically, as signs (*ayat*) that point to the Creator and the moral order. The title of the surah, Al-Nahl, means "The Bees," an expression taken from the mention of bees that occurs about midway through the chapter. An example of a living creature, the bee, indicates the dually phenomenal and imaginal, or scientific and revelatory, aspects of the Qur'an's real symbols, metaphors and similes, especially that which usually goes undetected or unperceived by humans, except for those who follow the Qur'an's continual injunctions to study and reflect upon all aspects of what is the environment.

In the verses that directly precede the appearance of the bees, themes that first opened the surah recur, namely, Allah's revelation and creation, which invite reflection on signs of the phenomenal world, as well as a specific sign, "cattle." The Qur'an next highlights the beneficial food and drink extracted from plants and animals in the form of milk and (fermented) juice:

65. And God sends down water from the sky, and thereby revives the earth after its death. Surely in this is a sign [*ayah*] for people who listen [*yasma'un*].

66. And surely in the cattle there is a lesson [ʿibrah] for you: We give you to drink from that which is in their bellies, between refuse and blood, as pure milk, palatable to those who drink it.

67. And from the fruits of the date palm and the vine, from which you derive strong drink and goodly provision. Surely in this is a sign [ayah] for a people who understand with reason [yaʿqilun].

Honey is mentioned next. Implied from the textual context (*maqam*), honey comes from the bees just as water, juice, and milk come from the creations of the sky, the plants, and other animals. These are all inanimate yet interactive symbols for humans, and, as the text directs, they are “signs” of Allah for study and contemplation.

In the next verses the environmental symbols take on standing as beings. The bees themselves are implied to be sentient, with ontological significance, even to the extent that as a community they receive revelation. The Qur’an’s term for this is *wahy*, divine “inspiration” from Allah, which complements the text’s term elsewhere, *tanzil*, revelation that is “sent down” (as in a “book” such as the Torah, Qur’an, or teachings of the Prophet Jesus). In verses 68–69 (as depicted in the cover art for this book), bees receive specific instruction from God:

68. And thy Lord revealed [awha] unto the bees, “Take up dwellings among the mountains and the trees and among that which they build.

69. “Then eat of every kind of fruit, and follow the ways of your Lord made easy.” A drink of different hues comes forth from their bellies wherein there is a healing [shifa’un] for humankind. Truly in that is a sign [ayah] for a people who consider with reflection [yatafakkarun].

On one level, this material resembles the preceding verses on inanimate signs: honey has a generic benefit, as do the signs rehearsed in verses 65–67. However, honey here also carries distinctive benefits, like the healing mentioned in verse 69, and appears in varied colors, further evidence of God’s mercy, simultaneously manifest medically and aesthetically.

Remarkable to many readers of verses 68–69 is that Allah, exalted and transcendent, speaks directly (“inspires,” “reveals”) to the bees, as He does elsewhere in the Qur’an to human prophets like Noah and Moses. Many see this to be an affirmation of the Qur’an’s own teaching that “there is not an

animal that lives on the earth, nor a being that flies on its wings, but (forms a part of) communities [*ummat*] like you” (Q. 6:38). If real bees receive revelation, inhabiting “communities” or colonies like humans, then it would follow from a theological perspective that Allah’s commandments to the nonhuman world deserve as much consideration as do human-oriented directives. This would represent a strong environmentalist claim. There is also a weaker yet still powerful proposition, that if the “revelation to the bees” were to be read in the Qur’an only figuratively and not literally, with bees remaining as another objective “sign” on which humans are to reflect, or if they are just referential symbols of the embodied communication from God that is really only received by human men and women like Maryam (Mary, mother of Jesus) in the Qur’an—then, at least, the bees are a unique kind of natural metaphor that points to the Real by demanding rigorous study of natural sciences.

The reading of the Qur’anic “environment” that comes from these bee verses is thus imaginal, physical, as well as moralized, and, as early commentators noticed, it is also scientific. Qur’an interpreters in the formative period perceived an empirical dimension to the bees beyond the rhetoric of metaphor and simile. Like many of the Qur’an’s signs that explain physical processes, for example, reproduction and the movement of planetary objects, the verses from Al-Nahl explain honey’s origin and properties medicinally, in literal meaning. This scientific understanding of the verse was not lost on exegetes; in fact, it was elaborated with much reasoned reflection. Such Muslim environmentalist interpretation of this Qur’anic symbol illuminates the way in which empirical modes converge with religious ones in Islamic humanities.

For example, in his discussion on the verses of Al-Nahl, Sarra Tlili shows how the philosophical commentator Fakhr Al-Din Al-Razi (d. 1209) readily blends environmental science with environmental ethics.²⁶ He emphasizes the capacity of bees for intelligence in their construction of hives. Tlili summarizes part of Al-Razi’s discussion of “The Bees” in his “Great Commentary” on the Qur’an as follows: “Through the medium of inspiration, Al-Razi explains, God taught the bees how to build their hives in the hexagonal shape—the sides of which are exactly the same size—something that a rational human being would be able to do only if using rulers and compasses. The hexagonal shape itself is the ideal form for the hives, Al-Razi and Al-Qurtubi [another commentator] assert, for it is the only one that leaves no gaps between the cells.”²⁷

Tlili also explains how Al-Razi marveled at the social capacities of bees many centuries ago: “Furthermore, Al-Razi seems impressed by the bee-hive’s social structure, which involves a queen that the worker bees serve and carry around upon moving from one place to another. Bees’ sensory perception of music is another astonishing fact. Al-Razi says that if bees abandon their hives, they can be brought back by playing music for them.”²⁸ Tlili then quotes Al-Razi’s own words directly from his classic work of Qur’an interpretation, *The Great Commentary* (*Al-Tafsir al-Kabir*, also known as *Mafatih al-Ghaib*): “[The bee] is singled out by these marvelous characteristics, which point to its cleverness and skill, and since it acquired these skills only by way of inspiration (*ilham*) which resembles the state of *wahy* [revelation]; it is no wonder that God says about them, ‘And your Lord inspired the bee’ (i.e., Q. 16:68).”²⁹ The discussion of bees, engaging Qur’an, flows logically from environmental science to interspecies religious ethics.³⁰ In the classical works within the Islamic humanities, bees are also further imaginatively depicted for social qualities.

When allegorized in the sources, bees’ presentation usually follow along the lines of the previous discussion of birds, portrayed as being close to humans in intelligence. For example, in the Brethren of Purity’s philosophical work, *The Case of the Animals Versus the King of the Jinn* (epistle 22), chapter 25 is titled, “The Virtue of the Bee—His Marvelous Life and Economy and the Special Gifts that Set Him Apart from All Other Insects.”³¹ In this work, bees are anthropomorphized through their eloquent speech as conveyors of a message. The bee prince is the only animal in the narration to be given a name, Ya’sub, and he speaks as the representative of all “swarming creatures” on behalf of this intraspecies community. Ya’sub describes the gifts of the bees and then continues in the following chapter to engage in a detailed discussion on political governance, prince to prince, with the king of the jinn.

Bees illustrate present ethical, scientific, and political dimensions of the Qur’an’s real metaphors in the symbolic and phenomenal dimensions of Muslim environmentalisms. Today bees are not just a symbol of environmental crisis: they *are* in crisis. Qur’anic material on bees now speaks to Muslims and other readers in a time when there is an alarming disturbance and decline of colony bees, with their status having been declared to be threatened in some areas, apparently as a result of harmful pesticide use. In the twentieth-century environmentalist movement, the environment

was defined by crisis through the work of Rachel Carson on the impact of insecticides in *Silent Spring*, her book carrying the title, and with an opening parable, that evokes an American suburban landscape “silenced” because of the death of birds due to toxins. There are currently numerous works on bees emerging in Anglophone environmental humanities.³²

Animals in present-day environmental humanities indicate what it “means to be human” with respect to environmental conditions shared by all, humans and other creatures, as expressed in symbolic frames that, as the Qur’an teaches, have ultimate accounts. Symbols and metaphors in classical Muslim art and literature, with animals like birds and bees, are simultaneously real and imaginal, expressing both manifestly real and ideal ethical relations, along with a humanism of the shared nature of humans and nonhumans. In Qur’anic context, such empirical signs and indications point to the unseen in environmental realities of the past, present, and future. This occurs in a mode of metaphor that engages, and encourages, empirical study and understanding of scientific realities.

Sciences of Moral and Material Worlds

Muslims have categorized knowledge, including sciences (*‘ulum*) now known as environmental sciences like botany, wildlife biology, chemistry, geography, atmospheric and oceanic sciences, and so forth, within the same field as ethics and philosophy as well as the religious sciences. Muslim ethical commitments to the environment operate not just through metaphors but serve also as real phenomenal experience across these fields, as shown in the previous example of Qur’anic symbols like light, water, and animals including insects. Historically, practices of environmental engagement also connect transformational environmental sciences like alchemy to the practical sciences of the soul across humanistic and naturalistic disciplines. This Islamic empiricism indicated explicitly by Qur’an blends imaginal, moral, and phenomenological understanding. In the Muslim-majority contexts where they originated, these disciplined areas of study functioned to connect humanistic dimensions to physical and natural science, and within self-consciously ethical frames.

In his seminal book in the field of history of science, *Islamic Science and the Making of the European Renaissance*, a critical presentation by historian of

science George Saliba tells the story of the ascendancy of “Greek science” within the context of the ‘Abbasid social and political world.³³ Saliba investigates closely the science that Muslims developed in the era, sometimes called a golden age, such as through robust taxonomies and rigorous mathematical algorithms and models. Saliba shows that Muslim scientists not only translated Greek works but also adapted and altered both the theory and practice of Hellenistic scientific tradition, rendering it as valid and verifiable, replicable science. Classification within branches was among the great achievements in the natural sciences, according to Saliba, evidenced by magisterial encyclopedic works by Muslims, some of which were based on Greek prototypes such as Aristotle’s work, while many others were not.³⁴ Highlighting the significance of empirical work in this new “Islamic science,” Saliba argues that across the history of natural sciences, from geography to zoology to medicine, it was rigorous empirical practice, like astronomical observation and record keeping, that typified Muslim approaches. This produced methods and materials across disciplines that comprise the bases of environmental sciences today, including fields like chemistry, health, geography, botany, medicine, and the study of animals like zoology.

The empiricism that Saliba highlights as Muslims’ distinctive contribution included the development of techniques and technologies in environmental sciences like lab chemistry, cartography, and astronomical tables. While religious philosophers saw much to debate in matters of *kalam* (dialectical theology, as around Mu’tazilism and Shi’ism in light of what became an Ash’arite Sunni mainstream), reason and religion (or revelation) were not in categorical opposition; moreover, scientists in key fields such as optics (like Ibn Haytham) did not position themselves in conflict with religious thought.³⁵ The religious tensions Saliba discusses are the disjunction of astrology and astronomy, which also mirrored power dynamics among elites in the imperial court of ninth-century Baghdad as well as commitments to documented scientific methods and models among Muslims. Saliba’s main argument on this point is that the prestige of Greek learning combined with empirical methods to produce theory and practice.³⁶

Argued here is that “the environment” was constructed through moralized discourse that emphasized experimental and experiential study. Sciences, as Al-Ghazali expressed for optics, had multiple dimensions of the moral and the material, manifest as symbols that are also manifestations of

the real. In cases like alchemy and medicine, as illustrated by the legacy of the figure Ibn Sina, for example, sciences were related to disciplined knowledges of philosophy and even psychology, such as Avicenna's lengthy discussion of the souls of plants (called "the vegetable soul," possessing characteristics of nutrition, growth, and reproduction).³⁷ The discussion about possibilities and extent of human and nonhuman knowledges ('ulum) of the phenomenal world, whether prophecy or mathematics, was cast in a wider form of empiricism, including experiential knowledges of doctrinal *tasawwuf* (Sufism) emphasizing the "path." In this way, esotericism is both relevant and highly fruitful for recognizing an Islamic conceptualization of environment, whether historically or epistemologically, as well as phenomenally and empirically. To study the natural world as moralized in terms of such human-world relational interaction and even transformation, perceived in both seen and unseen realms, is also a forward-looking objective of environmental humanities today.

Alchemy, as a spiritual practice of transformation that bridges correspondences of cosmology, prophecy, physical elements, represents both how deeply empiricism pervades Muslim environmental knowledges, as well as actual methods intentionally to relate the symbolic to the real. The field of Muslim alchemy, *al-kimiya*, drew on previous traditionally community-based knowledges as well as Hellenic, Indian, and Chinese traditions of the arts and sciences.³⁸ In its traditional form, alchemy expresses the relationship of the real to symbolic, macro- to microcosm; it also represents the empirical study and practice of how natural, environmental processes may be derived and even influenced. Many of the famous Islamic scientists, those who first developed today's environmental sciences as in global universities today, were philosophers and alchemists. Alchemy was a reputable field for centuries before receiving its discredited reputation as "magic" inside and outside of western Asia.³⁹ It has independent strains in eastern Asia, such as Java in Indonesia, that enhance the monism of Ibn Al-'Arabi with aspects of compatible esoteric systems like pre-Islamic Tantra.

Despite an acute European interest in Islamic alchemy in the medieval period, and revived romantic occultism in the colonial period, now continuing in today's postcolonial New Age appropriations, the topic is not usually included in standard discussions of Islam and science. When Islamic alchemy is discussed, as in history of science, it is typically the precursor to modern laboratory-based chemistry. Despite an emphasis on cosmology in

religion and ecology, nevertheless alchemy, the fundamental knowledge of the material world and its transformations particularly under human manipulation, is rarely discussed as such in Islam *and* the environment.

For centuries, practitioners of mainstream alchemy across Muslim-majority societies from Africa to Asia saw their discipline rooted in Qur'anic understanding, for example, in correspondences of "signs on the horizon and in the self" (Q. 41:53). Academic consideration of alchemy in the orientalist tradition tends to bifurcate, either to emphasize exoteric applications (for example, how alchemy was the forerunner of modern chemistry and other empirical sciences) or to focus on its esoteric aspects, such as with followers and enthusiasts of Ibn Al-'Arabi. However, it is precisely the blending of such esoteric and exoteric tendencies, both as a science of the soul and a science of the cosmos, that would inform a Muslim-centered humanistic environmental understanding.⁴⁰

The principal text for Muslim alchemists was a book called "The Emerald Table," *Al-Lawh al-Zumurrud*. An appendix to a first- or second-century work attributed to neo-Pythagorean philosopher Apollonius of Tyrana (Ar. Balinus), this was considered to be a derivation of a core of material called *Hermetica* that had originated in Egypt, attributed to none other than the legendary figure Hermes. "The Emerald Table" was understood to contain the basic principles of alchemy, correlating cosmologies of what is "above" with that which is "below." It diverged in this respect from the mainstream influence of Aristotelian cosmology, which would posit a difference between the earth and the celestial sphere.⁴¹ Such correspondences of micro- and macrocosm were a key aspect of mystical sciences, developed, for example, in Neoplatonic and monist theosophy that interpreted the Qur'anic doctrine of transcendent *tawhid* (God's unity) in terms of experiential immanence through transformations like "unveiling" (as in Ibn Al-'Arabi's own doctrine called *wujudīyyah*).

Tradition credits Jabir b. Hayyan Al-Sufi (d. 815), a student of the sixth Shiite imam Ja'far al-Sadiq (d. 765), with being the first Islamic alchemist, and numerous works exist under his name. Known as "Gerber" in Latin, Jabir's work was also formative of European alchemy. His work drew on Aristotle in some of its aspects (postulating four bodies like earth, water, air, and fire; four qualities like hot, cold, moist, and dry, and so forth), but Jabir placed this within a theory of "natures" that had the ontological properties of real entities, like creatures. Jabir developed a theory based on the

elements sulfur and mercury, wrote on organic substances and other materials, and theorized subjects like heat and temperature. His writing emphasized the existence of all things, even the intangibly subtle and the unseen, as being material elements.⁴²

Following Jabir's system of fundamental elements, alchemists sought to manage transformations of the natural world through these materials and their properties. This experimentation rested on the premise that grand processes could be replicated in the laboratory and even manipulated there through empirical practice and expertise. Key questions were the transmutation of base metals into "noble" metals like gold, along with the potential for altered or accelerated transformation of other physical materials that undergo natural processes, such as through achieving the "balance" (*mizan*) of their natures (e.g., hot, cold, moist, and dry). This could involve applied numerology or number theory, like the ratios that correspond to Pythagorean music theory (like 1:3:5:8); esoteric symbolism called *hurufi*, as with the letters of the Arabic alphabet; and, cosmology (for example, planetary correspondences). Many alchemists focused on the goal of discovering *al-iksir* ("elixir"), a general term for the solution to whatever formula or process was in question.⁴³ Predominantly, they sought to discover elixirs that would confer youth and health, most universally in the form of a cure for all disease; corresponding to this, they also sought simultaneously to perfect the transformational spiritual formula for the purification of the soul.

While some Islamic alchemists opposed overly allegorized interpretation, many had explicit interest in esotericism. For example, along with the famous physician Abu Bakr Muhammad b. Zakariya Al-Razi (Lat. Rhazes, d. 965) in his work on alchemy, other key figures actively explored precisely these philosophical aspects (e.g., Ibn Umayl, d. 960).⁴⁴ In turn, alchemy came to be used as a fundamental metaphor in itself within "spiritual science," as in the example of *The Alchemy of Happiness* (*Kimiya-yi Sa'adat*), one of the more influential works under the name of Al-Ghazali. The logic of the layering of inner and outer domains, a signature trait of alchemy, structures presentation of even everyday pious religious realities in Al-Ghazali's works, like his great forty-volume compendium, *Ihya' 'Ulum al-Din* (Revivification of the religious sciences), still widely studied across Asia.

Classical manuals of *tasawwuf* (Sufism), which began to appear at about the turn of the twelfth century, explain applied practices of transformation such as *dhikr* (formulaic repetition of perceived divine reality) in order

to alter the fundamental chemistry of the “heart” by its softening, polishing it like a mirror, or to dissolve obstructions to the emanation and clear reflection of divine qualities like light. Mystics would use extended alchemical metaphors to relate inner and outer sciences, such as the layers of the heart, and by way of long allegorical discussion of elemental mixtures like oil and water (as in the case of another “Al-Razi,” Najm al-Din Al-Razi, d. 1256, in his Sufi manual).⁴⁵ Al-Ghazali’s esoteric treatise, *Mishkat al-Anwar*, discussed earlier, relates metaphor and science of the natural world to inner knowledge based on Qur’anic imagery.

The implication of this heritage for environmental humanities today is that Islam conveys a means to grasp unseen and uncontrollable aspects of phenomenal reality integrally connected to moral sciences while maintaining an empiricist approach. Muslim environmentalisms extend ontologies of the environment beyond the human, and even beyond what is perceptible in this world with respect to the ethically determined experience of the state of the worlds to come. Put in terms of present-day environmental crisis and in nonconfessional terms, the indeterminacy of planetary futures and the scale of global risk requires a humanistic recognition of topics that were formerly the domain of religion in order to apprehend physical realities that are undergoing unprecedented transformation as the result of human manipulation in the era that is now called the Anthropocene. For this, commitments of environmentalists of all orientations require imagining the correspondence of the seen and the unseen.

Environmental Science and Muslim Resource Management

Muslim-majority societies developed the same environmental sciences that are known today through their European adoption during the period of the region’s civilizational Renaissance at the far geographical periphery of the Muslim-majority world. Unthinkable at the time, it was nevertheless within a few generations in the modern period that Europeans would themselves come to dominate almost every world region in which Muslims lived, Asia to Africa, and with an expressly strategic objective of environmental resource extraction. The academic field Islam *and* science is usually concerned with the genealogy of the European Enlightenment, and maintaining related imperialist and positivist prestige, by appreciating Muslim sources

insofar as they provided intellectual resources for Europe's colonial ascendancy and "progress."⁴⁶ This represents more than a metanarrative supporting Eurocentrism; it was also adopted and invented by colonized Muslims themselves to render the civilizational significance of Islam in the same terms as colonizers' justifications and mechanisms of power—such as their own successes in areas of science and technology.

Islam *and* science became charged polemically in colonial contexts in which claims to "civilizations" and their respective achievements were at stake in a global struggle and as reflected within both sides of the orientalist and occidentalist imaginary, "Islam" and "the West." The myth of the decline of Islamic civilization was shared by colonials as well as their subjects, with many of the elite and influential who were spokespeople for the autonomy and resistance of Muslim societies themselves having trained in Europe. While adopting the valorization of progress, they held to a Qur'anic identity. Many of them, like Said Nursi in Turkey (1877–1960), developed original conceptions to maintain commitments to the ideals of science along the lines of its European civilizational legitimacy that were combined with nativist and Qur'anic paradigms. What became a polemical and at times apologetic discourse on Qur'an and science, coupled with an activist impulse to recreate Muslim schooling and education against colonial structures, led to revitalized questions about the normatively "western," "Islamic," or universal identity of branches of knowledge. This discussion renewed the long-standing Muslim traditions of the medieval era that had evaluated the nature of "Greek," "Islamic," and other fields of knowledge expressed by thinkers from Al-Ghazali to Ibn Khaldun (d. 1406).

Categories of Islam and foreign knowledge came exaggeratedly to typify discourse of "modernists" in the colonial and proto-nationalist period such as Sayyid Ahmad Khan (d. 1898) and Jamal Al-Din Al-Afghani (d. 1897).⁴⁷ Such are the colonial and postcolonial contexts in which the claim was made that the Qur'an, for example, presaged discoveries of modern science, now representing a newly polemical dimension of the field of the *i'jaz al-Qur'an* (miraculous nature of the Qur'an). Such messages still circulate widely on the Internet in the twenty-first century. In addition, starting in this period many advocates for the religion of Islam in the public sphere claimed authority precisely through scientific and technological expertise, such as is represented today by engineering and computer science today, rather than demonstrated mastery of traditionally derived Islamic knowledge.

“The environment” as an expression denoting scientific fields of problem-solving circumscribed by the phenomenal and ideological object of environmentalism would not yet emerge until the later twentieth century. Its structures then merged with inherited postcolonial realities with respect to relations of power and representation affecting Muslims, Islam, and regimes of orientalism and occidentalism (i.e., Muslim perceptions of “the West”). Since they too were writing before the birth of *the environment* as an expression of the 1960s and 1970s, Muslim modernists of the colonial era did not address the category any more than did their counterparts in Europe, America, and elsewhere. As can be seen from perusing the *tafsirs* they wrote, they followed global norms in viewing “crisis” in the language of moral and political issues like colonialism and often with respect to Muslim social ethics (for example, Muhammad ‘Abduh, d. 1905).⁴⁸

Since the invention of the environment conceptually in the twentieth century, contemporary Islamic writings of environmentalism directed at Muslims tend to treat science as outreach, much the same as do programs produced by nonreligious NGOs for missions to Muslims. Common, for example, is to have the Qur’an’s “ecological” verses introduced as “religious” content, while science, if discussed with specificity, is afforded little contextual relation to the scriptural material (recall, for example, the structure of the guide to Islamic farming considered in chapter 2). Naturally, there are exceptions to this, like Alie Yafie’s *Merintis Fiqh Lingkungan Hidup* in Indonesia, discussed in the previous chapter, which treats science and discusses global environmental problems, including climate change, at great length and with more particularity than do comparable English-language treatments that generalize about religion and a rather unspecified environmental crisis. Nevertheless, Prabowo of the Majelis Ulama Indonesia, in an interview, stated that the disconnection between research scientists and religious scholars is one of his primary concerns. He said that to bring together religious and scientific expertise is one of the greatest challenges in developing Indonesian Islamic law of the environment. Religious scholars, he said, need to understand science today as much as Muslim scientists need to be ethically informed and morally guided by Islam.⁴⁹

In their contemporary treatments of Islam and environmental science, Muslims authors follow the field of environmental science in taking the environment to be the biosphere. It is usually not as any philosophical construct or a priori humanistic principle, as has been developed in this book

from the standpoint of religious studies. Given also that the environment is cast in terms of its “crisis,” as in the Anglo-American style, Islam and the environment is also defined in this literature to be located at the intersections of problems and their imagined solution, scientifically as well as ethically. For example, the same source from the Indonesian Ministry of the Environment presented in chapter 4 in terms of how it construes Islamic law and outreach, *Islam Dan Lingkungan Hidup* (Islam and the environment), shows this tendency. The bulk of the correlation between Islam and environmental science in this book as well as others like it is a “Sea”—“Land”—“Air/Atmosphere” categorization of the biosphere. This is a standard approach in fields of environmental sciences in international universities today, while it also does resemble a kind of treatment of the elements in scientific surveys of the natural world by Muslims reaching as far back as medieval sources. The first five chapters, about half the work, do not concern Islam but rather describe environmental issues and the importance of addressing them through sound policy and environmental ethics. *Islam Dan Lingkungan Hidup* begins with a discussion of environmental science with respect to questions of the “ecosystem,” “energy,” “adaptation,” and so on. It also addresses specific issues (*masalah*) such as pollution and global warming.

Distinctive to fields of Muslim religious environmental resource management is that environmental conditions, as understood in terms of empirical and scientific rigor, are communicated and advanced practically as metaphorical outreach. This draws on sources of Islam, but also the aspects of multivalent environmental symbol treated in this chapter as distinctively Islamic in moral and material modes. Such Muslim approaches are more than just symbolic, but rather practical principles whose potential lies precisely in the combination of metaphor and materiality. An example is the revitalization and implementation of long-standing notions of protected areas in Islam, which are known as *hema* and *harim*.⁵⁰ These ideas date back to the earliest period of Islam, thus rendering them authoritatively “Muslim.”⁵¹ Related to the symbolism of water resource management and conservation, contemporary measures coincide with initiatives in conservation, including rain forest preservation in Southeast Asia, as well as numerous wildlife conservation initiatives in the Middle East.

Hima is a principle and practice of land management and resource access and thus represents a notion of environmental conservation in Islamic

legal traditions. It provides for animal sanctuaries, reserving space and resources for plants, fish, birds, or any species that are under threat. The term conveys the meaning of being “guarded,” and historically hima was the area of land reserved to the king or owner of land for the grazing of flocks of animals.⁵² Izzi Dien suggests, in his *The Environmental Dimensions of Islam*, that hima was originally a pre-Islamic practice and institution. It protected the herds of pastoral nomads and others against drought, which may also have been seen to be under the protection of a tribal deity. (The idea of the haram around Mecca reflects related ideas as a place in which flora and fauna are protected, and it is also said to be a pre-Islamic custom.) With hima in effect, animals were safe to graze within the designated area without the owners being concerned that they would be stolen or killed.⁵³

In the early Islamic period, Izzi Dien explains, hima was historically determined for the area of Mecca and Medina, and this was established on the “secular” authority of the Prophet Muhammad as a civil statesman. It was only in the period of the caliph ‘Umar, Izzi Dien writes (on the authority of the legal scholar Ibn Qudama, d. 1223), that the practice of hima became rationalized as *maslahah*.⁵⁴ After this, hima came to be understood in Islamic jurisprudential norms as a conservation area, and, according to Izzi Dien:

- It should be created in response to a definite public need
- It should not cause harm
- It should be in a place without buildings or cultivation
- Most importantly, the purpose of *hima* is to protect public interest⁵⁵

Hima is not applied as widely today for conservation as is its companion notion, *harim*, although there are some instances of declared hima, as in Lebanon.⁵⁶

Key initiatives for Muslim environmentalism in Indonesia, as well as globally, have been based on *harim*. *Harim* means “protected zone,” an area guarded from misuse, especially with respect to water resource management. There is a hadith that the Prophet Muhammad once cursed the person who would spoil three kinds of places: the high road, the shade of a tree, and the riverbank. The *harim*, Izzi Dien explains, protects all three. For example, in the classical sources the tree’s *harim* extends away from it for “five cubits” in all directions. The *harim* around a spring depends on the characteristics of the water and the site, as, for example: there being

enough area for water to flow, the size of the pool that the spring forms, the area needed for humans and others to move around this source, and the kind of land over which it runs (cultivated land). Izzi Dien outlines further specifications on harim protection on wells, whether used for irrigation or for drinking, quoting from a case from the Maliki legal school by way of explanation, “whatever causes harm to the water is a cause for banning [that activity], and in the case of a drinking well, any cause that impedes drinking from the drinking well is banned.”⁵⁷ Fiqh sources stipulate that a river’s harim extends to half of the width of the river on both banks.

In contemporary Muslim environmentalist practice, a harim still represents a protected area designated by a perimeter established around a water source, such as a river, in which there cannot be activity that disturbs or depletes the source. Harim is promoted, however, for symbolic value as much as conservation efficacy, and the key point here is that these aspects work with mutual reinforcement. For example, in Indonesia, there is a program for a Harim Zone at Pondok Pesantren Moderen Darul Ulum, Lido, located between the two major cities of Jakarta and Bandung in West Java. This residential (*pondok*) Islamic pesantren features a curriculum in *ramah lingkungan* or “environmental friendliness.” K. H. Ahmad Yani, the leader (*kiai*) of the school, developed the Harim Zone along with the Rufford Foundation.⁵⁸

The area of this Harim Zone is eight hectares. It is located along a river, just a bit upstream from a site at which large trucks haul away water for bottling and sale. The overall water catchment area in this region is increasingly degraded due to development, leading to landslides and floods that impact nearby metropolitan areas. The mission of the Harim Zone, however, is focused on Islamic education, not land use policy. Each student at the Islamic school, according to K. H. Ahmad Yani, is assigned a tree within the zone to look after (*merawat*) in the years before graduation. He or she receives a grade based on how well the tree is looked after. Many international visitors also come to the Harim Zone, and K. H. Ahmad Yani describes its function as primarily to serve as a model for others.

The influence of the program is imagined to be both within the immediate area as well as to extend far more widely, through the impact of its symbolism, across Indonesia. In a recorded interview with me, K. H. Ahmad Yani explains the palpable metaphorical potential of the Harim Zone in his own words:



Figure 5.2 K. H. Ahmad Yani at the Harim Zone, Pondok Pesantren Modern Darul Ulum Lido, Bogor, West Java, Indonesia. Photograph by the author.

We had three specific goals here with our “Harim Zone.” First, it is an educational center for students. Here at this site, students [of the Islamic boarding school, Darul Ulum] may learn about ecology and the environment, biology, and other subjects. There is no need for them to travel elsewhere since they can observe it all right here. Second, there is the goal that the “Harim Zone” will serve as the “lungs” of the Islamic school [*pesantren*]. It can “refresh” the *pesantren*. Today, global warming can no longer be avoided. The effects of global warming are now felt everywhere. We hope that the Harim Zone may serve as an area that restores the atmosphere not only at Darul Ulum, but that also may serve the surrounding communities. Third, we want to offer evidence to society at large that Islam really does provide a conceptual framework for how we may care for the environment. One of these ideas is the concept of the “Harim Zone.” We hope that we may educate people about “*harim*” so that in the future “*harim* zones” may be set up here, and also in many sites all over Bogor [West Java], and eventually all across Indonesia. We will provide education and

cooperate with the environmental agencies so that there will be dedicated areas for water conservation, to mitigate the effects deforestation, and to address other problems.⁵⁹

Although K. H. Ahmad Yani connects the project to forestry, calling the Harim Zone the “lungs” (*paruh-paruh*) of the area, it is most of all a symbolic model, like “green mosques.” It is intended to serve as an inspiration for others with an impact that is expected to have power and resonance beyond the boundaries of the immediate community.

Such a program of conservation management uses the experience and authority of symbol instrumentally, while affirming the mobilizing power of metaphor in applied Islamic environmentalism. To moralize and to symbolize the real world in religious modes is not only a matter of science and policy for planning, intervention, or control. It is also a principle for rendering the unseen, unpredictable, and indeterminate aspects of the environment, as with the crisis of global warming in K. H. Ahmad Yani’s words, into intelligible and replicable measures for mitigation and adaptation.

Environmental Symbols to Apprehend Planetary Futures

Islamic traditions of science and symbol, whether medieval or modern, point to how environmental humanities may take an important and necessary next step toward developing its own disciplinary tools to apprehend the environmentally unseen, whether in terms of the conditions of nonhuman creatures like the bees or worst-case scenarios for all in the environmental future of the planet. Events and experiences otherwise explained by totalizing schemes of conventional science may also be meaningfully perceived in terms of the presences, events, and realities that relate to power, protection, and the moral order. Many view the environmentalist project to ethicize the positivism of science to be an urgent one in the twentieth and twenty-first century, whether with respect to nuclear capacity, climate disaster, or another aspect of the Anthropocene. Critique across the environmental humanities, Al-Ghazali to Seyyed Hossein Nasr, and now Lisa Sideris and Bruno Latour, holds that science remains incomplete for humans’ ultimate purposes and possibly also for planetary survival. Islamic religious thought affirms the same perspective.

Muslim environmentalisms' philosophical foundations across shared sources also point to how the unseen may be rendered simultaneously through symbols of empirical science and the realities of Qur'anic metaphor. For environmental humanities, the incorporation of Qur'anic horizons from Muslim systems models demonstrates that how to grasp that apocalyptic awareness may be a rational part of apprehending planetary power and protection. Well-defined aspects of Islamic tradition bring the unseen and unknowable to bear upon environmental uncertainties that humans cannot otherwise manage through modernist limitations of futuristic science and already outdated technology. This is an aesthetic and empirical connection to make, along with being an ethical and intellectual one.

Environmental events, such as the disasters that are out of the direct control of those whom they affect, are moralized for the past and the future within the Qur'anic textual framework. This is an aspect of a religious worldview that secular humanities cannot validate, yet it shows the moralizing extent to which it nevertheless would aspire when such "natural" occurrences are deemed to be anthropogenic. In the Qur'an there are numerous examples of previous communities that encountered floods, earthquakes, and other phenomena of disaster. For some, this supports the application of the same system of moralized environmental symbol as explanation for present events as well. For example, the devastating tsunami that swept over Aceh, Indonesia, and coastal areas around the Indian Ocean in 2004 was seen by some Muslims to be a consequence of moral conditions, like punishment stories about past communities in the Qur'an such as that of the community of the Prophet Nuh (Noah). The social response in terms of reconstruction was also viewed to some degree as a form of restoration in Islamic terms.

When events that are experienced as an "act of God" occupy a moralized contemporary sphere, as in the case of anthropogenic environmental crisis, religious Muslims may react to the changing landscape of the present world, its sudden catastrophes and its slow changes, in terms of a Geertzian "mixed genre" of real and symbolic environmental valences or in metaphors that are ambivalent. Sometimes the register of the symbolic is the only response available with respect to environmental change that otherwise is out of control, as when religion is the last resort with refugees' prayers on Mount Merapi. The example discussed in chapter 4, the

uncontrolled burning of an equatorial rain forest in order to clear land for oil palm production, said to be the greatest environmental disaster to affect the region of Southeast Asia and the world over, is another example of an environmental response in the realm of the symbolic. Praying for rain, an act of God, was the only response to another “act of God”—the uncontrollable fires. The real-world metaphorical answer of Muslim environmentalism does not represent a categorical dismissal of science but rather its imaginal extension under conditions of precarity.

Anticipation of worst-case planetary futures with respect to the effects of greenhouse gas emissions presents a limit case of the moralization of environmental change, for Muslims and everyone else. The climate crisis as presented by secular voices in the global North and South, and quite vocally in the environmental humanities, blends the unthinkable (the planet uninhabitable by humans), as affirmed by scientific evidence, with ethicized and affective understandings. Nonreligious approaches like that of Naomi Klein’s book, *This Changes Everything*, turn to moralization as proposed mitigation of impending disaster, advocating adaptive and ethical strategies of both sentiment and mobilization. In the Islamic register, science needs little effort to translate into religious frameworks with respect to climate change or other environmental problems, and religious frameworks likewise may also inform world understandings through rigorous and empirical approaches to symbol, ethics, and transformation. Both aspects are integral to the Muslim heritage of environmental sciences as they have developed in secular modes.

Global Muslims already are affected by climate change, as evidenced by their own firsthand accounts, and they are projected to remain disproportionately so as the projected impacts intensify in the future. In my own firsthand interviews with farmers on Java and fishermen in Ambon, eastern Indonesia, conducted in the years 2010–2015, many shared their own empirical observation about increasingly unpredictable seasonal conditions. Farmers in central Java, for example, said that they did not even know when to plant anymore. Fishers in the islands of Maluku (Ambon) similarly related that weather patterns affecting seasonal winds and other conditions were increasingly irregular. The region of Indonesia is particularly vulnerable to such conditions, including severe weather events like tropical storms and flooding, sea level rise and ocean acidification and drought. Many Muslim environmentalists whom I interviewed related the

environmental state of the future of this world and the next to being a potential “hell on earth” (more than one Javanese kiai discussed global warming in terms of effects anticipated in Indonesia in this regard).

To grasp climate change or any other environmental issue—like the fate of the colony bees—in a field of everyday awareness means being able to perceive the undetected and to anticipate the environmental transformations of the future. The Qur’an continually reminds religious Muslims of this challenge as well as of the human nature to be in denial in the face of both the hidden and the obvious truth. Like the discipline of alchemy, not everyone has the specialized capacity to alter the elemental chemistry above in order to maintain the life, power, and protection of what corresponds below. Furthermore, the critique of differential power of colonialism or capitalism in Muslim environmentalism, especially as it engages climate realities related to fossil fuel extraction (and coming largely from areas of the world largely inhabited by Muslims) invokes a Qur’anic framework of justice. The question for those without this power or agency to change the present trajectory is not just one of adaptation, mitigation, or risk management but also of living with indeterminacy. Islamic materials incorporate the unknown and unseen from the past, present, and precarious future in terms of a clear critique of power and privilege, along with a religious call to vigilant scientific observation and investigation.

Presenting the environmental future as an experiential and ethical reality, linked to a Qur’anic landscape, is one documented way that Muslim religious environmentalists seek intentionally to affect a change of heart in order to motivate environmental action in the present. This may be based on a religious expectation of the world’s end, drawing on long-elaborated pious traditions that contemplate the “last things” in order to reorient the subject to a wide moral reality of the present (such as Al-Ghazali’s concluding volume of the *Ihya’ ‘Ulum al-Din*). It may also be informed with scientific sophistication. Muslim symbolic and ethical frameworks, in context, guide responses in terms of an awareness that transformation and reckoning to come means primarily that future generations will confront those of the present, calling them to account for the effect of their own choices as they become evidentially clear. In an environmental frame, modern teachers, preachers, and activists connect this to a pious intention not to “corrupt” God’s creation in the present, or even to show “mercy” to it, so that one’s future fate will not be burning as in the Fire.

Planetary futures of Muslim environmentalism engage the human science of what is unseen, even if it is certain, and continually call to an awakening to catastrophe that still looms in the distance while it is increasingly evidenced in immanent signs that manifest all around. Climate change uniquely brings the scientific, symbolic, and imaginative aspects of present realities into direct correspondence with the signs of now inevitable changes of the world to come. Religious and nonreligious actors expect this to occur globally within an ethical and structural framework like environmental justice, reflected in the emphasis in environmental humanities on grappling with such repercussions, including the end-times. Islamic systems that advance empiricism across diverse scientific knowledge are equipped to accept and address the hard religious, aesthetic, and scientific facts of cause, effect, and consequence in this world and the next.

* * *

The concept of environment, whether it stands for science or nature, or is constituted by problems, challenges, and crisis, which are viewed to have a moral reality at their core, is an ethical idea. Science is intentionally ethicized by some for environmentalist commitments, as in the writings of Carson. As Latour and others have effectively shown,⁶⁰ scientific positivism may further be seen as an ideological stance in itself. Ethics bound to traditions of Islamic science and art on Qur'anic models also express humanistic environmentalism insofar as they convey aesthetic and moral symbols along with transformational empirical practice. Muslim traditions of both religion and science have long developed the robust relation of the symbolic to the real, along with rigorous methods for their analysis, evaluation, and connection.

An imagined confrontation of religion and science is not an issue in Muslim systems in the ways usually expected of the Christian and European legacy, at least not before the colonial era, when the latter achieved its hegemony over Muslim societies across Africa, Asia, and the Pacific. Colonial Muslims worldwide remained at pains to maintain the scientific notion of the environment that embeds naturally into a Qur'anic idiom, just as the text itself continually encourages verifiable investigation of the specific phenomena of the natural world. Postcolonial and polemical propositions related to this are still promoted widely, such as in the claim that among the "miracles" of the Qur'an is its anticipation and affirmation of the

empirical discoveries of natural sciences—from biology and genetics to astronomical and earth sciences. These tendencies continue to shape Muslim response to environmental change in contemporary realities.

For environmental humanities, religion connects the unseen and the moral to the phenomenal, just as they are connected in the original European romantic concept of “nature.” Relevant to contemporary environmental studies, religion offers ways to link an understanding of unknown and indeterminate environmental effects to an everyday notion of the future, whether living with incremental change or a long-predicted predicted catastrophe. As overlapping disciplines structure such correspondences in Islamic humanities (through Qur’an, law, Sufism, and so forth), they also extend them into the unseen and unpredictable futures of responsibility and consequence. To recognize these sciences and expressions as a language of the ethical and the unknown opens Muslim environmentalism to systematic apprehension that is grounded in more than just textual tradition. Moral and material symbolism influenced by Sufism, scientific inquiry, and planetary realities themselves render multivalent commitments to the natural world that reflect Qur’anic relationships. In his lecture on a humanistic understanding of environment, “Waiting Gaia,” Bruno Latour wrote similarly, “What if we [shift] from a symbolic and metaphoric definition of human action to a literal one? After all, this is just what is meant by the anthropocene concept: everything that was symbolic is now to be taken literally.”⁶¹ The next chapter turns to living communities and commitments constituted through ritual practice and activism as self-conscious Muslim environmentalisms, enacting the connections that bond creatures together as they are propelled toward uncertain and consequential futures.

Muslim Environmentalism as Religious Practice

Accounts of the Unseen

WHEN ENVIRONMENTALISM IS integral to religious piety, it draws on tradition differently than when religion is enrolled secondarily for environmental projects. This is no more or less religiously or environmentally authentic than is instrumental programming, and, as examples throughout this book have shown, such modes do readily overlap. However, when Muslim commitments of environmentalism are primarily for the sake of religious goals and not the reverse, teachings that are not part of a standard interfaith menu, such as apocalypticism or the exemplary model of the Prophet Muhammad, emerge as central. They may express unseen dimensions (such as the afterlife itself), for which Anglophone environmental humanities may not have a cognate vocabulary. Finally, these practices constitute communities as movements that can otherwise remain socially illegible to standard social analysis of globally mainstream environmentalism.

Part of the problem of erasure relates to the understanding of Sufism. Pious patterns, named or unnamed, are at the core of Muslim environmentalisms I studied in fieldwork. This very characteristic, however, renders them relatively unseen in academic analysis due to persistent orientalist structures in approaching Islam. In order to conceptualize and describe these qualities and their manifestations in the past and the present, the term *Sufism* is used here as in the perspective of the academic study of religion. In Islamic studies, *Sufism* refers not just to the esoteric philosophy and

elite “path” to apprehending divine unity that carries the formal Arabic designation *tasawwuf* but also to the more general, and far more widespread, notions of doctrine, devotional practice, and social and political structure shared by the communities that form around such authority, hidden and manifest. Over the past decade or two, in Islamic studies and religious studies, many structures have come to be analyzed through the academic framework of Sufism besides theosophy. For example, this engages local and transregional saints and social histories of named lineages or Sufi orders. It also includes traditions, such as veneration of the Prophet Muhammad, that are not explicitly labeled Sufi in context but that are nevertheless integral to such systems.

The Euro-American genealogy of the study of Sufism, until not so very long ago, was marked by orientalist tendencies that formerly would have set apart Sufism, as a perennial or transcendental philosophy, from Islam, the religious lifeways of Muslims. This is despite the fact that Sufism, as referred to academically today, and its structures were a dominant strain of Sunni Islam for a millennium, certainly up to the reformist movements of the colonial era. As understood academically, the separation of Sufism from what Sunni Muslims do in everyday religious practice is now discredited in foundational academic presentations of the past decade or more, which emphasize continuities of Sufism with normative traditions such as Qur’anic study and practice.¹

A leading Muslim environmental activist, prominent scholar of both European and Islamic humanities, and expert in medieval Muslim sources on philosophy, Seyyed Hossein Nasr, broke ground half a century ago with a foundational theory for environmental humanities. For this, as in his prolific scholarship overall, he drew on an esoteric and elite intellectual tradition that was already quite legible within Eurocentric frameworks. Nasr’s model of perennial truths aligned with academic humanities in its self-conscious identification with European and American romantic imagination. Its orientalist mode of understanding of Sufism also has the tendency to detach a universalized aspect of Islam, spirituality, from a Muslim-specific identity.

Nasr’s approach does not easily accommodate Muslim ritual practices or readings of the Qur’an. This does not make Nasr’s writings on environmentalism (or Islam) any less valid, and certainly in no way diminishes their significance—acknowledged or not—to English-language environmental

philosophy and ethics of the past fifty years. Throughout this chapter, starting first with Nasr and moving to other field-based examples that also connect with Sufism, layerings of Muslim environmentalism draw on esotericism in philosophy as well as devotional piety for powerful teaching and potential mobilization. Nevertheless, these also remain overlooked and “unseen,” at times even to one another, across modern academic perspectives on Muslim religious tradition and still within the Eurocentric legacy of environmental humanities as a whole.

Shaped by fieldwork data that draw on a decade of work on Muslim environmentalism in Southeast Asia, examples in this chapter present devotional expression in the form of globally widespread Islamic rituals like *salawat nabi* and *dhikr*. This was what I saw observed, expressed, performed, and theorized repeatedly by religiously Muslim environmental activists. It constituted religious Muslim communities of environmental commitment in modes like those I documented in previous work on mainstream networks of Qur’anic education and practice. Those familiar with the study of Islam and Sufism in the past as well as the postcolonial period will recognize that such practices do not necessarily conform to named tariqahs (Sufi orders, *tariqat* or *uruq*). They also represent trends of normative piety that are ever more popular in Muslim Indonesia in the twenty-first century. In postcolonial societies like Indonesia, pesantren-based authority and popular media are modes of transmission of these structures (for example, through networks of Nadlatul Ulama). The cosmologically framed treatments that are typical of Islam and the environment, as in Seyyed Hossein Nasr’s formulation, also do not incorporate these common practices, ubiquitous though they may be and as much as they connect philosophical—and environmental—interpretation to activism and communities of piety.

Whether discussing the writings of Nasr or field-based cases in Indonesian Islam, differing environmentalisms have aligned with regimes of authority—for example, Euro-American nature philosophy in one case and Muslim ritual traditions in another—to reproduce particularized and even privileged notions of environment. Regimes of power over what is “the environment,” including that which could erase struggles for environmental equity and justice, control what its terms are globally. This may render voiceless a subaltern *who* of the environment in colonizers’ terms, possibly compounded all the more by historical realities such as European subjugation across insular Southeast Asia, to extend an idea originally

suggested by Timothy Mitchell's study of colonial Egypt.² This environmental agent, possessing neither mimetic nor political agency, may be viewed as the relational *who* of the biosphere itself, or it may be colonized or otherwise marginalized persons (to follow more closely Gayatri Spivak's use of the sub-altern, a concept limited to human beings as persons) as they are affected by colonial and environmental conditions such as exploitation and erasure.

Underlying postcolonial critique, Islamic religious systems express these environmental *whos*, such as according to the Qur'an itself in its calls to justice. Even the nonsentient phenomenal world, seen and unseen, is a "creature" (*makhluq*) whose experience is structured in relation to controlling and uncontrollable powers in the Qur'an. In the text, apocalyptic scenarios confer on the marginalized, and even the nonhuman, a voice, as landscapes themselves transform according to moral truths. Activism directed toward or directed by this piety keeps proximate the awareness of environmental consequence. A healthy biosphere is a precondition to a human existence that is dependent on divine command in Muslim environmentalisms, whether they are inflected as legal or spiritual; and, as in the Qur'an, the nonspeaking subject, the environment, serves as a continual reminder of the responsibilities and limits of human capacity in relation to God the Creator.

This fundamental rendering of Muslim environmental commitments does not rest on a principle of nature or any experience of the sacred, nor even environmentalism defined in relation to an idealized ethical pragmatism like sustainability or conservation. It is, in the worlds of interlocutors I heard over years of fieldwork, merely the practice of Islam following the best model of the Prophet Muhammad (*sunnat Nabi Muhammad*), striving with divine "*sunnat Allah*." In accord with the Qur'an, from religious cosmogony to eschatology, and filtering through everyday moral conduct, the environment may be cast as "Muslim" in terms of a natural and original state (*Ar. fitrah*) and includes humans within it as among creation's active participants. To study this from a secular perspective as in the history of religions or environmental humanities hones an analytic approach of the unseen and illustrates ways to extend the environmentally symbolic across ethical dimensions. Now, in the book's final chapter, documentation from fieldwork research renders real people and their stories into the picture, with community practices that embody environmentalist theory

and activism in the service of religious goals, rather than the reverse. A final reflection back on environmental humanities is then to ask, what structures of power would prevent these voices from otherwise being seen and heard?

Islam *and* the Environment: Sufism

Many authors who write on Islam *and* the environment do concentrate on the Sufi tradition, but through an exclusively textual mode and without considering any social or ethnographic dimensions, as is characteristic of a certain European academic style with respect to Islam.³ Seyyed Hossein Nasr's writings are emblematic of two signature aspects of such an approach: first, he emphasizes Sufi doctrine that is cosmological,⁴ his area of scholarly expertise, employing a language of Islamic science, spirituality, and "nature"; second, Nasr draws on a tradition of experiential and symbolic contemplation of creation as Sufi expression (such as Persian-language verse like that of Rumi), much like the romantics. These tendencies in representing Muslim environmentalisms reflect aspects of both the tradition of European study of Sufism and American nature thinking, especially in the New England tradition.

Emphasis in other work that intentionally follows or complements Seyyed Hossein Nasr's approach to "nature" and "spirituality" also fit in well with the heritage of Anglophone nature writing in environmental humanities.⁵ Some other prominent authors in Islamic studies besides Nasr, such as William Chittick, have tried to adapt the difficult doctrine of Ibn Al-'Arabi (d. ca. 1240) to take the form of a kind of nature theory of *wujud* *diyyah*, and similarly casting Islamic cosmological doctrine as the basis of an Islamic notion of environment and even environmentalism.⁶ These primary sources from Islamic humanities usually develop the kind of microcosmic-to-macrocosmic correspondences that typify the later Neoplatonic tradition, and, as has been detailed in the previous chapter, these have historically tended to come with a reputation for both monism and magic. As environmental humanities, however, this scholarship resonates with cosmological tendencies in European approaches to nature, which persist in the academic field of religion and ecology today.

The translated poetry by thirteenth-century mystic Jalaluddin Rumi remains popularly recast as environmental among this cadre of academics and also nonacademics.⁷ Rumi, claimed recently to be the “most-read poet in America,” is frequently invoked for Islam *and* the environment, and this under the banner of Sufism. The Anglophone literature of Muslim environmentalism reflects orientalist-textualist tendencies in this respect when it sidelines historical, political, and ritual dimensions of Islam. Environmentalist references to Rumi also characteristically downplay the many dynamic, violent, and often disruptively confrontational images in Rumi’s poetry. These are dominant tropes that draw both on the Qur’an and everyday material transformations, such as through occupational (and alchemical) concerns like cooking and baking, metal-working and swordcraft.⁸

Field materials presented in this chapter, in contrast, reflect the living impact of centuries of practical and devotional piety, incorporating that which the field of religious studies now typifies as Sufism in the form of patterns of devotional and esoteric piety that constitute community life. A way to grasp such tradition might be to acknowledge the prominent influence of widespread traditions in study and practice of Al-Ghazali’s *Ihya’ ‘Ulum al-Din*, the forty-volume masterpiece that casts exoteric Muslim religious life (and, in the last volume, death), with respect to religious realities that are not incompatible with esoteric truths (although these are not expressed in this work). A striking feature of such patterns in Southeast Asia is that they are not labeled as Sufism and in many cases represent normative Islam. This register of devotional piety is also emphasized in popular revival traditions, even now long after the period of reformist criticism of Sufism during the time of the period of English, Dutch, French, Portuguese, Spanish, and American direct colonial rule over Muslims across the region, from Burma to Vietnam to the Philippines and Indonesia.

Such communities of practice are rarely connected to named orders today. In Indonesia some Sufi orders (Ind. *tarekat*) lasted through the suppression of Dutch colonial rule and the related reforms in Indonesia and elsewhere in the region, as documented by scholars.⁹ However, they are not widespread, nor could they be said to be socially influential networks. New charismatic movements (Ind. *aliran*) are just as popular underground in many locations and at times are viewed to be similarly heterodox, as once were more marginalized Sufi orientations as well, particularly on Java. The

communities such as are documented here formed through widespread practices, however, are more based in the pesantren tradition of teachers and schools which are the mainstay of Islamic education. These normative practices are also on the rise as popular expression in the public sphere. In an environmental register as here, these tend to be closely connected to local environmental communities, represented by agricultural food cooperatives, for example, that have been in existence well before and also after the year 1965.

During my fieldwork in Indonesia, I encountered only one self-conscious attempt at recasting named Sufi traditions in order to develop a new environmental community program. This took a form, labeled by its own promoters *eco-Sufism*, that was atypical, relying heavily on Indonesian translations of English-language academic works from American scholars of religious studies like William Chittick (an expert on Ibn Al-'Arabi) and Franklin Lewis (biographer of Rumi), instead of continuities like those transmitted through the pesantren tradition or even the tariqahs of South-east Asia. (Of note, Seyyed Hosein Nasr, disfavored in the linguistically and culturally linked context of Malaysia due to universalist-perennialist commitments, was never mentioned.) Like programs described in chapter 2 with respect to ecotourism, this development occurred through non-traditional institutional modes even as it engaged them. It adopted modes of piety like those that were otherwise presented as traditional in this chapter, and the plan for new business activities was an expansion of a center that was already in operation. I did carry out intermittent fieldwork with this group over several years, but as far as I am aware the program stayed in the proposal stage. It was also featured in a dissertation by Suwito in 2011, later published under the title *Eko-Sufism*.¹⁰

When I was in the field on Java, the organizers' energy was devoted to developing this program of eco-Sufism, which would follow a model of corporate "training" that could take place at a retreat destination for ecotourism.¹¹ As explained by one of the prospective leaders in a university lecture and video presentation in my classroom in Jogjakarta,¹² the idea for this was a kind of workshopped self-accounting resembled the model of a teacher from Baghdad known as Al-Muhasibi (d. 857), whose nickname means "the accountant"; for him, relentless self-scrutiny of faults was the first step on the spiritual path.¹³ It is likely that for the program's

promoters this resonated more with the dominant cultural trope of *tawbah*, or “repentance,” a theme in popular religious music and film and even social-political spectacle. The calculative dakwah for charity and prosperity, rather than the actual writing of Al-Muhasibi (of whom they had not yet heard), was likely the most direct religious influence. The imagined structure also closely resembled a kind of management-directed assessment of “personal goals” expected of a corporate exercise in professional development for employees. Notable to the discussion here, however, it was a practice—not doctrine, not a cosmology—that was sought from Sufi tradition to revitalize Islam for the sake of the environment. In addition, leaders were keen to reach out to those with power and influence, recognizing the reality of social inequality as a key structure to leverage in realizing these enterprising environmental goals.

Sufi ways of experiential knowledge, new and old, named and unnamed, relate inner and outer realities. Both the cosmology of Ibn Al-ʿArabi as well as modern American spiritual (“not religious”) attitudes such as those of Seyyed Hossein Nasr express this experiential knowledge in Anglophone writings on Muslim environmentalism. In much formal Sufi doctrine, perceptive and ethical ascent through the levels of reality, from material to subtle, is typically cast as a perfection of the self for the sake of achieving experiential awareness of the unity of divine reality. A common metaphor for the process is the gradual replacement of aspects of the ethical self (*nafs*) with those resembling the Prophet Muhammad, coming ever nearer to realizing what is divine perfection through this model. Widespread transformative practices that alter the alchemy of the heart like *dhikr* may achieve this goal under the guidance of a *shaykh*. Orientalist scholars have made much of the potential for doctrinal ideas such as “perfect man” (*al-insan al-kamil*), “divine breath” (*nafs*, not to be confused with the lower *nafs* of base desire), and so on as potential material for Islam and the environment. However, I found in fieldwork that communities of environmentalism seeking such transformations turned to applied and grounded practices of piety, rather than to “spiritual” doctrine absorbed by individuals with reference to elite traditions. Nor, for that matter, were they aligned with Javanese or another local-cultural identity, Arabic-Persian prestige, or the American historical ideology of nation-building and mastery over ever receding human and environmental frontiers. They blended naturally into the religious landscapes of Muslim Indonesia in a global setting.

Muslim Environmentalism as Cosmology and Spirituality:
Seyyed Hossein Nasr

Indonesian materials reveal communities of Muslim environmental commitments that do not correspond to models and interventions of global mainstream environmentalist analysis and activism. Thus, they tend not to register in English-language treatments of Islam *and* the environment. This is largely *because* they conform to the most fundamental modes of Islamic religious practice, continuous with the past, and not because they diverge, and even as they redirect affect, devotion, and intention to explicitly environmentalist intents. These structures tend to blend in naturally with global Islamic patterns that also happen to have long been poorly recognized, or even ignored, in European academic analysis. The data nevertheless here represent a process of environmentalist social formation based in community practices of just the type that the environmental humanities seeks to theorize, such as by acknowledging marginalized networks and intellectual trends that would imagine interspecies relations of consequence. Obstacles to addressing both orientalism and colonialism in perceptions of Islam continue to render Muslim environmentalism of the type presented in this chapter largely invisible in Anglophone humanities overall.

Islamic registers have been expressed comfortably within extant mainstream discourses in environmentalism for the last five decades, however, in the seminal writings of Seyyed Hosein Nasr. Nasr was the first self-identified Muslim environmentalist in American humanistic academic circles in the 1960s and 1970s, highly respected as a scholar in Islamic studies. He delivered his influential Rockefeller Lectures at the University of Chicago Divinity School in 1966, about a year before the short and often-credited article by Lynn White Jr. initially appeared in print, and with similar arguments. Nasr's adoption of the problem/solution environmental paradigm presaged what would become a dominant approach to environment as crisis for the coming half-century. By the same token, it also demonstrates how properties of Muslim environmentalism emphasized here like community practice, the unseen, and apocalypticism would be overlooked by even so eminent an expert.

Nasr blended notions of sublime nature, familiar from European romantic intellectual traditions, with the New England tradition of Emerson,

Thoreau, and Harvard University (with all of which he identified), and in harmony with Unitarian Universalist strains within its divinity school. As with the romantic leanings of orientalists (such as would also be represented at Harvard by the renowned scholar of Sufism and specialist on Rumi, Annemarie Schimmel, professor at Harvard from 1967 to 1992), Nasr identified an essentialized idea of “traditional” and “holistic” Islam textually, and at times as a categorical contrast to a construct he calls the “West.” Nasr’s affinity with perennial or transcendental philosophy in the late 1960s put him in the phenomenological circle of Mircea Eliade, Carl Jung, and Huston Smith with respect to their own approaches to non-Christianities in religious studies.¹⁴ Nasr’s theosophy, centered around medieval Persian and Arabic texts, also represents a typical orientalist approach to Sufism in the history of the academic study of religion, as with its lack of focus on social or political systems; he tends to present the context for his intellectual history in terms of discrete biographies of great men (e.g., Suhrawardi, Ibn Sina, and Ibn Al-‘Arabi).

Nasr’s lectures at the University of Chicago, published as *Man and Nature* in 1968,¹⁵ were received just at the moment that the U.S. environmental movement was beginning. In the U.S., the Cuyahoga River caught fire in Cleveland, Ohio, in 1969, the same year as California’s oil spill in Santa Barbara; President Richard Nixon established the Environmental Protection Agency in 1970. Along with this, space exploration had burst into American consciousness as the next “frontier.” The photograph taken from a moon expedition in 1968 called Earthrise, which looks back on “home” from out in space, became an iconic environmentalist image of the interconnectedness and fragility of the planet.¹⁶ Critiques of limits of technology and colonizing enterprise were also in American popular imagination in the latter 1960s. For example, the film about humanity’s limits in the fragility of space and human-evolutionary implications of a nuclear age, *2001: A Space Odyssey*, was released in the same year as Nasr’s lectures (1968), and the long-syndicated television series exploring what it means to be human in the context of otherness out on the “final frontier” of space, *Star Trek*, had begun airing in 1966. This was also the time that the intolerable racism and violence of systemic white supremacy had reached a limit in U.S. cities (the Watts uprising occurred in California in 1965); the Native American activist movement (Alcatraz, Wounded Knee) was inspiring national and international mobilization of indigenous groups. On U.S. university campuses, it

was the same time as critiques of the imperialism of “the West,” while the middle class protested compulsory military service in the Vietnam conflict in Southeast Asia (students were fatally shot on the campus of Kent State in Ohio in 1970). Religious studies was also beginning as a field. “Non-Western religions” (which tended not to include Islam) were in themselves seen as a “solution” to the reenchantment of the anomie of modernity,¹⁷ as Eliade himself had written in his inaugural essay for the new journal out of the University of Chicago Divinity School, *History of Religions*, in 1961 lauding the field as a “New Humanism.”¹⁸ This was the context of Nasr’s Rockefeller Lectures, later published as *Man and Nature*.



Figure 6.1 NASA image AS8-14-2383 taken by William Anders on December 24, 1968, on the Apollo 8 mission, the first trip humans made to the far side of the Moon. Photograph by NASA in the public domain.

A product of its time, *Man and Nature*, the seminal scholarly work in Muslim environmentalism, presents a universally humanistic rather than Islamically specific argument. The book is subtitled *The Spiritual Crisis of Modern Man*. The theme of “modern man” being in “crisis” reverberates through the decades of Nasr’s later environmental writing as well.¹⁹ Nasr’s lectures cast the environment (that is, “nature”) in terms of problems that should be solved through moral awareness. It combined the European ideology of nature’s sublime with teachings like those of the eleventh-century Ikhwan al-Safa’ (“Brethren of Purity”) and draws widely across the fields of the liberal arts. Along with construction, Nasr renders critique in universalist, not tradition-specific, language, much as in the Unitarian tradition of Emerson (the son of an ordained Unitarian minister) and his friend Thoreau. *Man and Nature* criticizes “the West,” as Lynn White Jr.’s article did for medieval Latin Christianity (which he also identified with the Hebrew Bible), offers a critique of “modern” technology, as does White (discussing the impact of the introduction of the plow in Europe, for example), and lays out fundamental ideas that represent romanticized notions of perennial “spirituality” (similar to White’s concluding universalization of the possibilities of Franciscan piety).²⁰

While drawing on classical Muslim medieval sources, Nasr’s approach also closely conforms to an intellectual genealogy of European nature philosophy, including notions like the sacred and sublime expressed in fully romanticized Anglophone registers. Nasr’s written comments on the lectures, published decades later, open by situating his perspective with respect to the American nature writing tradition of Emerson and Thoreau (literally in “place,” referencing Nasr’s own fondness for strolling around the area of Walden Pond, Nasr himself having attended MIT and Harvard).²¹ The main points of *Man and Nature*, and Nasr’s writings on environment overall, resonate strongly with the transcendentalist themes of Emerson’s writing, as in his essay “Nature,” as well as of Thoreau in *Walden*. In “Nature,” Emerson praises the natural world experienced in solitude as being the experiential “ministry” of Universal Being, claiming the metaphysics of all matter (the environment) essentially to be both spiritual and moral. Thoreau’s ethics advanced erasure of human relationships as an aspect of environmentalism, for example, that to leave society in “solitude” is an aspect of the authentic experience of nature. This may partially

explain the omission of core Muslim humanistic material on community from Nasr's own metaphysical Muslim environmentalism, which is remarkable considering his foundational writings elsewhere on the Muslim ethics of companionship ("spiritual chivalry" or *futuwwa*).²² Nasr also evidences a style of Euro-American romantic critique to a much greater degree than any postcolonial critique, whether Islamic, nationally Iranian (his place of origin), or otherwise.

In an article appearing decades after the Rockefeller Lectures in the volume edited by Richard Foltz, Frederick M. Denny, Azizan Baharuddin, *Islam and Ecology* (2003), Nasr acknowledges that the "theology of nature" (his expression), which he implicitly proposed, in his first lectures in the 1960s, to be a new invention of the twentieth century, whether in a Muslim, Christian, or Jewish idiom.²³ Nasr's writing had cast "nature" as the idea of the environment, inherently crisis free and without any problems short of a deficiency in the human capacity to apprehend it or revere it. Defining the environment in terms of nature's crisis was typical of white American environmentalism in the 1960s, and was still largely separated from American environmental justice movements that named and challenged environmental racism as such. In contrast to social justice activism, Nasr depicts environmentalism, Muslim and non-Muslim, primarily in terms of the causes and effects on humans' degraded spiritual state. Nasr's humanistic contribution is to locate this universalism of "spirituality" in the heritage of Muslim-majority systems. He theorizes perennial holism as the essence of "Islamic science," which, he claims, had been truncated and alienated from its very own truths under conditions of modernity.

For example, writing in the opening to *Man and Nature*, Nasr states "The Problem" in the form of a classical romantic-modernist critique of anomie: "Today, almost everyone living in the urbanized centres of the Western world feels intuitively a lack of something in life. This is due directly to the creation of an artificial environment from which nature has been excluded to the greatest possible extent. Even the religious man in such circumstances has lost the sense of the spiritual significance in nature."²⁴ For Nasr, a nature-concept serves as a potent critique of modernity, alienation, and environmental exploitation. However, unlike other American voices, such as Muir's own writings on wilderness for example, Nasr does not view nature as the opposite of society or as "primitive," but rather sees its

valuation to be the pinnacle of civilization's most sophisticated, learned, and elite expression, as on the part of medieval Muslims.

Underlying Nasr's view of the environment and the related moral critique of an empty scientism is unrelenting criticism of technology, but with little evidence of a critique of capitalism as such. Nasr bypasses a standard narrative that lauds Islamic technological discovery, allowing him to cast the entire category technology in a negative light. For example, in his article in the collection, *Islam and Ecology*, Nasr's first argument is to charge technology to be the reason why teachings that address the environmental crisis are "prevent[ed] . . . from being propagated and implemented in society in which the voice of religion is still very strong and where all ethics . . . have a religious basis" (that is, the U.S.). He continues by offering his first point as follows:²⁵ "1. The present environmental crisis is directly related to the use of modern technology and the various applications of modern science. . . . There is no pause in the development of ever newer forms of technology, a pause that might allow Islamic societies to create some form of equilibrium with the technology that is borrowed, to 'humanize' certain aspects of it to the degree possible, and to minimize its negative environmental impact."²⁶ Neither Nasr nor White could foresee critiques like those of Timothy Morton or Donna Haraway that theorize technology and ontologies of the virtual vis-à-vis deconstructed ideas of nature and the natural. In Nasr's view, the mechanized stands in unquestioned binary opposition to the humanistic and the spiritual, in much the same way that Nasr also promotes another nonhybrid binary distinction, East and West.

In over a half-century of writing on the topic, Nasr's environmentalist critique also focuses disparagingly on a particular kind of scientific attitude. Bad science is scientism, defined by Nasr in the new preface to *Man and Nature* (1989) to be a type of monolithic ideology: "One of the chief causes for this lack of acceptance of the spiritual dimension of the ecological crisis is the survival of scientism which continues to present modern science not as a particular way of knowing nature, but as a complete totalitarian philosophy which reduces all reality to the physical domain and does not wish under any condition to accept the possibility of the existence of non-scientistic world-views."²⁷ Nasr is not opposed to all "science" of course, merely projections of the "Faustian science" (a label of Goethe's that he occasionally uses). Furthermore, he objects, not unlike Al-Ghazali, to the proposition that the limited regimes of science alone could claim to

grasp, much less express, an ultimate truth. Staying clear of Marxism, Nasr repeatedly attempts to prove this point by citing the harm that has allegedly been caused by the materialistic pursuit of the degraded modernist ideology of science and technology, which is presumably divorced from an environmental, spiritual, or any other kind of valid ethics.

This position establishes Islam *and* the environment on the grounds that the environment represents a “crisis [of Modern Man],” manifest as “Problems” (like alienation from “nature”) that must be solved “spiritually” by way of a moral transformation. At this point, in more than one work, Nasr characteristically diverts the proposed solution to the problem toward historical understanding of Islam before returning to a universalized solution. Nasr’s answer to the environmental problem is Islamic metaphysics, what his school calls traditional or spiritual knowledge (sometimes identified with good holistic science). A scholar of Nasr’s work on environmentalism, Tarik Quadir, explains that Nasr seeks to introduce *ma’rifah* (knowledge of the unseen or Ultimate Reality, a classic Sufi expression) into environmental understanding.²⁸

In his article appearing in the volume edited by Foltz and Denny, *Islam and Ecology*, Nasr explains what this means for the environment in the following words, emphasizing how Islamic science as a solution also underpins the “spirituality” of Muslim, if not all, environmentalism: “Over the centuries Islam produced a major scientific tradition which dealt with the world of nature and at the same time functioned within an Islamic universe of discourses. This scientific tradition has much to offer in the process of formulating a contemporary language expressing Islamic views of the relation of human beings and the natural environment.”²⁹ In his many essays on the subject, Nasr does not treat actual fields of Islamic science in detail, whether alchemy or chemistry, life sciences like biology or botany, earth sciences or physics like astronomy or optics, or any other field including traditional “religious sciences” (*‘ulum al-din*) like jurisprudence and Qur’an exegesis. In his discussion, Nasr cites Islamic art as the productive counterpart to Islamic science and its expressions, including literature and the writings of the Sufis.

Typically, literature in the field Islam *and* the environment looks either to Qur’an (“ecological verses”) or to Sufi philosophy (cosmology), but, unlike religious Muslims, rarely both at the same time. This conforms to an old European split within textual-orientalist Islamic studies, and religious

studies more widely. As a learned scholar of Islam, Nasr has been the director of a major project in publishing a complete text of the Qur'an with verse-by-verse commentary, *The Study Qur'an* (2015).³⁰ Significantly, Nasr's *Study Qur'an* does not include, much less feature, environmental perspectives in its commentary. As part of the genre of global "modernist" exegesis, from Muhammad 'Abduh and Sayyid Qutb in Egypt, Mawdudi in Pakistan, to Hamka in Indonesia, it certainly might have done so, since these works historically have tended to be fairly wide-ranging in topics and approach overall. Nasr's work on environment, conversely, tends not to cite the Qur'an, preferring references that draw from medieval Muslim literature and philosophy. It could even be said that Nasr's environmentalist presentation distorts Qur'anic tradition from the perspective of Muslim piety by virtue of not revealing, nor even acknowledging, the eschatological dimensions of Islamic moral philosophy.

Also absent from the discourse is the fact that Nasr himself has long been a leading environmental activist; he is well-known to have inspired a famous group of "green Muslim" activists in the Washington, DC, area. To bring Islam into focus in environmental humanities, it is important to put real people (like Nasr) into the picture (like Nasr's) of Muslim environmentalisms.³¹ In my fieldwork, talking to leaders in Asia, patterns conventionally called Sufism, chiefly conveyed through ritual, eschatology, and ethics, determined the expression of Muslim environmentalism in religious settings, not Emersonian transcendentalism or elite, esoteric philosophy universalized to match scale with an everyman's individualized subjectivity. I found just Islam inflected through global Muslim piety, and thus subject to the usual distortions called academic orientalism. To render this material legible now in environmental humanities, the approach must directly engage Muslim traditions and not through another lens, such as that which William James once theorized at Harvard University as an expression of diverse "varieties," nor as a modern human resource to be managed through technologies derived from another religion like "mindfulness." The close identification between lived Islamic tradition and community practice may be what, I suspect, has rendered Muslim environmentalisms marginal to the standard English-language presentation of Islam *and* the environment. This is despite achievements, such as Nasr's original, groundbreaking insights into the role of the Islamic humanities in speaking to American environmentalists' expressions of crisis with the intent of solutions for all.

Rahmah and Environmental Devotions

My field-based study found explicit Muslim environmentalism to emphasize understanding of this life in terms of changes in the world to come. This occurred through pietistic and Qur'anically soteriological inflections of tradition cast in terms of environmental practice and preaching. My qualitative research showed these aspects of tradition correlated the ultimate mercy of Allah with the mercy of an individual person for the environment. There is ample evidence from fieldwork data, obtained through site visits, observation of religious observances, and interviews with religious scholars and activists, to show that "compassion to creation," for example, is a core teaching of Southeast Asian Muslim environmentalism.

Looking across the regional context in a general perspective, in many Southern Asian systems of environmental ethics, from Gandhi's *satyagraha* to "engaged Buddhism" like the expressed environmentalism of Thai leader Sulak Sivaraksa, love, mercy, and compassion and a principled stand for social justice are explicitly emphasized and interconnected.³² The patterns also resonate soundly with the Sufi expression of global Islam, especially in modes of piety in the prophetic mode. The challenge of colonialism and related Muslim reform movements in response did not decenter Sufi-inflected modes of devotional piety, although it did effectively strip them of a Sufi label in public discourse across much of Southeast Asia. The fieldwork data show that Muslim environmentalists in Indonesia turned to such traditional modes of pious expression in environmentalist theory and practice. For example, with *salawat nabi*, loving veneration of the Prophet Muhammad was intentionally transferred to creation at large with age-old correspondences between *sunnat Muhammad* and *sunnat Allah*.

Working from fieldwork data, a central theme of Muslim environmentalist thought and practice is "mercy for creation," key also in devotional traditions such as those relating to the Prophet Muhammad (he is known as a "mercy for worlds," for example, *rahmata lil-'alamin*). As a historian of religions working on Islam in Southeast Asia, I am aware that an entire tradition of veneration of the Prophet Muhammad has gone relatively overlooked in the fields of Islamic studies and religious studies until the last decade.³³ Collections of premodern manuscripts in Southeast Asia are full of materials that are dedications to the Prophet Muhammad but were

nevertheless not included in colonial catalogs such as of texts in collections in regional court centers across the archipelago. This despite the fact that recited texts like the “Barzanji” and others in the cycle praising the Prophet Muhammad called *mawlid al-nabi* comprise a large percentage of these archives going back to the premodern era.³⁴ This is also a genre of expression that is purposively environmentalized, as I will show. It exemplifies a fundamental mode of piety that is Qur’anic and based in hadith (and related *sirah* or biography of the Prophet), but is also still largely overlooked in ethnographic studies of Islam in Muslim Indonesia and elsewhere in Asia.

Knowing, for example, the significance of venerating the Prophet Muhammad in Muslim religious lifeworlds highlights themes of hadith that are widespread in modes of devotional piety, which leads directly to environmentalist attitudes and practices like those I found expressed in Indonesia. For example, there is a story, related in multiple firsthand accounts of hadith, that a date palm tree wept for the Prophet Muhammad when he relocated the place from which he stood to preach, the same spot at which the tree was close to him. This is one of many accounts of the loving and nurturing relationship the Prophet Muhammad had with creatures such as animals (birds, deer, camels), and vice versa. Here is one version of this report, coming from the *Sahih* collection of Bukhari: “Narrated by Ibn ‘Umar: The Prophet (please and blessings be upon him) used to deliver his sermons while standing beside (or leaning on) a trunk of a date palm tree. When he had the pulpit made [at the mosque in Madinah], he used it [the pulpit] instead [of the date palm tree]. The trunk [of the tree] started weeping [grieving out of love for the prophet] and the Prophet approached it, rubbing his hand over it [to soothe it and stop its crying].”

Various accounts report the tree’s sobbing and shaking, describing it as being like an abandoned child crying out for a parent. Embellishments to the story include details about the loving care that the Prophet showed in his comforting embrace of the distraught tree. Some narrations continue the story, recounting that the tree was given the choice to remain on earth or to take root in the garden in heaven where pious ancestors would eat from its fruit. (It chooses the next world in these accounts.) In other versions, out of compassion for the tree, the Prophet ordered it to be transferred to a new site so that it could still hear him preach. The story is usually told as an illustration of exemplary love for the Prophet Muhammad; if a tree loved the Prophet so much, how much more should Muslims? It also

shows the Prophet's compassion for other creatures, especially animals, highlighted in other hadith such as a well-known report in which he instructs companions to return baby birds to the nest from which they were taken, out of compassion for the mother bird.

This story of the crying tree also vividly expresses the Qur'anic idea that even the nonsentient world is populated with creatures. A tree, too, has feelings. Not only is all creation "Muslim" in its natural state, but humans participate relationally with these other creatures, whether or not their status is recognized. Naturally the best model for maintaining such relations, as with all social conduct, would be the sunnah of the Prophet himself. This, the sources show, instructs believers to empathy. The theme of such nurturing care has been a key emphasis in Islamic piety and theosophy dating back to Ibn Sina's great systematic work on the intellectual foundations of transformational sciences of healing, *Kitab al-Shifa'*. This is the same *summa* of Avicenna that was so influential on European scholasticism. It was also partially summarized in Arabic as the widely circulated and popular *Kitab al-Najat*, or "Book of Salvation," known throughout the Muslim-majority and Muslim-minority worlds.

This also indicates ideals of contemporary Muslim environmentalist ethics being actively practiced and preached, which I documented during fieldwork in Indonesia. I have not seen themes of compassion and mercy otherwise emphasized in contemporary English-languages messages of Islam *and* the environment, whether as a key word, Qur'an, or hadith citation, a project of a development agency, or other academic writing. In addition, although "creation care" is a Christian catchphrase for some contemporary environmentalist teachings, I have not witnessed it translated into Muslim idioms from a non-Islamic source, nor would I expect it to be in a setting like rural Java. Moreover, as core teaching, like a hadith of the Prophet, "compassion to God's creation," was expressed widely in Indonesia both as Islamic tradition and self-conscious Muslim environmentalism.

The central message I most often heard Muslim environmentalist leaders in Indonesia convey as "care for creation" was a version of a report of a saying of the Prophet Muhammad, a phrase that translates from Malay-Indonesian to English as follows: "Love [a better translation of the expression in Malay than "have mercy for"] what is on earth and you will be loved in heaven." During the course of my fieldwork over many years, whether in Arabic, Malay, or English, words for *love, mercy, compassion, intercession*, and

healing were all used heavily in the context of religious environmentalism.³⁵ The cluster of terms is often glossed as *ampun* (merciful “forgiveness”) in Bahasa Indonesia. Extremely common also is *ramah* (“friendly”), which does sound cognate to the English expression *environmentally friendly*, but which is also the Indonesian-Malay term that renders powerful pious ideas of closeness and friendship, as in Sufi social theory and ideals that relate to Muslim religious veneration of the Prophet Muhammad.

The accepted or “sound” Arabic hadith from which the authoritative citation on which this Muslim environmentalist idea would draw support, according to its frequent citation in fieldwork, has two canonical versions in Arabic-language sources. Both are found in Al-Tirmidhi’s collection *Sunan*, and one is a shortened variant of the other. Each of these widely circulated narrations uses the Arabic and Qur’anic verbal noun *rahmah* (“mercy”), expressing the same semantic root for two of the most common names of God (Al-Rahman, Al-Rahim), as in the invocation, “In the name of God, the Benificent, the Merciful”:

- (Narrated on the authority of ‘Abdullah Ibn Amr:) The Messenger of Allah, peace and blessings be upon him, said, “Those who are merciful will be shown mercy by the Most Merciful (Al-Rahman). Be merciful to those on the earth [*man fi’l-ard*] and the One in the heavens will have mercy [*yarhamkum* (verbal form of *rahmah*)] upon you;” and,
- The Prophet said, “Be merciful to the people of the earth [*ahl al-ard*] and the One in the heavens will have mercy upon you.”

Such fundamental ideas were also propagated widely in systematic works by Sufis. For example, scholar Alan Godlas has noted that the idea of *al-shafaqah ‘ala khalq Allah* (compassion for God’s creation) is a major point made by an early and influential Sufi systematizer of the tenth century, Al-Kalabadhi, with his definitive statement, “The foundation of faith is compassion for God’s creation.”³⁶

Love and compassion for creation, connected to the power and protection of God, His ultimate accounting, and the ethics of *hablun min Allah* and *hablun min al-nas* are all typical of Muslim environmentalism as I heard it taught and preached in Indonesia in activist and nonactivist contexts. Islamic ideas of creatures, resources, and ethics, expressed as ideals of beauty and knowledge as well as justice, comprise a working concept of the

environment that constitutes community according to these very relations of care. Messages about “love” are not unknown in environmental humanities and appear at least as frequently in the Anglo-American canon as Rachel Carson’s preferred moral imperative *life* (as in her writings on the sea, and of course in *Silent Spring* scientific knowledge conquers life’s opposite, *death*, another key term in the text). For example, Aldo Leopold defines the *land ethic* as love of community extended of land, and references to love of, by, and for creatures (like pigeons, wolves, and a fallen old oak tree) recur throughout *A Sand County Almanac*.³⁷ This Islamic teaching would remain illegible, however, in environmental humanities without viewing it, as here, in terms of the ways in which practitioners express commitments through religious practices and transformations of the “heart” (*qalb*). In the cases I studied in Muslim Indonesia, environmentalism was in fact an intermediary goal for an ascent toward such religious ends, rather than the reverse.

A Change of Heart and Environmental Reformations of Religious Practice

In Southeast Asian religious ritual, largely new environmentalist intents have been overlaid on the long-standing religious thought and practice of Muslim communities. Recall that Indonesianist Clifford Geertz viewed ritual as the site in which the work of religion occurs, uniting lived and ethical realities (“worldview” and “ethos”) through affectively experiential (“meaningful”) symbols.³⁸ Based on this firsthand fieldwork and more than twenty years working in the region overall, I have found, like Geertz, that ritual is a key dimension through which many Indonesian Islamic teachers and preachers develop revitalized approaches and attitudes, including environmentalism, through community-based activity.

There has been discussion of ritual previously in this book, already highlighting themes that anchor community in and to the environment. Islamic rituals always resonate with present-day theory in environmental humanities insofar as they are place based. For instance, Hajj, prayers for rain, and other community observances that were derived from documented practices of the Prophet Muhammad are essentially tied to landscapes in terms of their unique location of Mecca (Hajj) or in terms of situated environmental conditions (*salat al-istisqa*). The Hajj itinerary is actually a

multiday orchestrated movement through place, with requirements to be physically present at certain places at certain times. Enactments during Hajj to drink from a shared water source (Zamzam), to strive for water as Hajar did for her child (at Safa and Marwa), to sleep out of doors at another location (Muzdalifah), to make communal “standing” (*wuquf*) outside at yet another place called the “plain of knowing” (‘Arafat, said to be in commemoration of the Prophet Ibrahim’s story and in anticipation of the ultimate vulnerability of standing on Judgment Day) are all recognizably “environmental” with respect to popular understandings like outdoors experience and contemplation in a natural setting. They could even be understood by pilgrims in that framework as overlaid on sacred history and also fulfilling stipulated legal requirements.

The portable nature of other modes of worship in Islam requires an effortful making of environmental orientation and place. For example, in the case of salat prayer and prostrations directed at Mecca, which can be performed anywhere (“the earth is a mosque”), the act literally takes direction (*qibla*) from the fixed geographical orientation toward the Ka’bah in Mecca. A place-based perspective on ritual as environmental, echoing the theory of Jonathan Z. Smith on ritual “taking place,” also underscores the significance of intention (*niyyah*) in a field of community-oriented meaning.³⁹ The presentation to follow is based on research observations made in the same regional places as the location of Geertz’s Javanese ethnographies, some just a few dozen kilometers’ distance away; and data throughout this chapter are primarily drawn from West and Central Java over a period of about five to ten years.⁴⁰

In the cases to be discussed, “the environment” has become a recognizable and purposive agent in ritual practice, perhaps as the primary beneficiary, despite the fact that traditional forms of practice are not significantly altered in these enactments. While the outward form of the observance has not changed, to designate a prayer as explicitly environmental is nevertheless new in these cases, just as the English-language expression *the environment* (even in contrast to a concept of nature, for example) is distinctively modern. That perspective also turns around the emphasis of the discussion in the earlier chapters of this book: now, rather than Islam being in service of environmentalist outcomes, the environment is seen as a way to attain religious goals instead. This includes collective action and responsibility as much as matters of individual discipline and self-realization.

Many adaptations for environmental teaching and practice that I observed drew on what could be labeled academically as Sufi systems (dhikr and so forth), and many also were global adaptations of acts of piety in devotional modes that are especially prominent in Southern Asia, such as the practice of venerating the Prophet Muhammad in *salawat nabi*. In an identifiably Sufi register, and as a form of experiential knowledge and cultivated practice, the focus on return to a proximity with the Creator in an idealized landscape (i.e., *al-jannah* or heaven) cast environmental intent into centuries-old tradition, sometimes in a strikingly seamless way. Even though such contemporary Muslim environmentalist approaches take a conception of the environment from global messages, their explicit focus nevertheless has remained on the self within “creation,” and especially those relationships that are directed toward the Creator.

These practices could all be called prayers, but they are of differing types. For example, they are not the same as prayers for rain (*salat al-istisqa'*), which are already focused on an environmental circumstance like drought. There are many types of prayers performed by Muslims in Islamic Indonesia, and globally, beside the acts of canonical worship known as *salat*. For example, *du'a'* is the word for acts that fall within the category of supplicatory or petitionary prayer, whether performed in Arabic or another language spoken by Muslims. Dhikr is a disciplined practice of repeated or repetitive piety, communal or individual, that may be associated with esoteric expression or with regimes of self-cultivation of Sufi orders; dhikr may also be an act of devotion such as rehearsing divine praise uttering the names of God after daily worship. *Salawat* are prayers of peace and blessings devoted to the Prophet Muhammad, a long-standing tradition with Qur'anic support that became increasingly popular in the Islamic revival since the 1990s. (This has been fairly surprising to some observers, given historical controversy around the practice.) In all cases of environmental prayer to be described, formerly generalized practice has now been reworked to generate specific environmental sentiments and for explicitly environmentalist purposes.

The first example is eco-*salawat*, as developed by a highly respected *kiai* originally from Jogjakarta, now in West Java. It is an example of a rededication of prayer for environmentalist intent. K. H. Thonthawi Jauhari Mushaddad of Pondok Pesantren “Al-Wasilah” is renowned for his Islamic religious knowledge as well as his environmental activism. Along with developing an

Islamic law of the environment through key fatwas under the authority of the national organization Nahdlatul Ulama, K. H. Thontawi has also introduced new forms of environmental religious devotion that preserve traditional forms, which he considers an aspect of his Islamic outreach (dakwah).

K. H. Thontawi developed a new style of environmental religious devotion, eco-salawat, that preserves and blends in with traditional forms. In the eco-salawat, as he presented it to me for recording in both 2010 and 2011,⁴¹ the first verse is from standard Arabic salawat nabi, as recited worldwide by Muslims for centuries in accord with a Qur'anic injunction. It calls for prayers, peace, and blessings on the Prophet Muhammad, his family, and his companions. The second part, in the national language of Bahasa Indonesia, is for the environment. It translates, "With blessing (we) care for the natural world, a healthy environment [*lingkungan*], the earth sustained." A new intent has been created (environmental care), here both spoken and explicit, while the traditional structure and authority of salawat tradition remain the same.

An example of a similar kind of religious practice, an eco-dhikr, comes from an Islamic school designated as an environmental school, an eco-pesantren across the island of Java. This school, Pesan Trend Ilmu Giri, in the area of Imo Giri, is located on the southern side of the city of Jogjakarta, and it is a new center. Its leader is quite different from K. H. Thontawi in that he does not have formal training in religion (he started his career in the publishing and broadcasting industries in Jakarta). However, here new forms of environmental religious observance developed along similar lines, another instance of the conservation of a traditional devotional ritual form with repurposed intent. It is also the site of the planned eco-Sufi program discussed previously in this chapter.

Here purpose is internalized and left to individual choice in prayer, theory, and practice that is cognate with Sufi tradition as well as local central Javanese practice. I have seen two such eco-dhikrs in Pesan Trend Ilmu Giri. The dhikr observance I attended in 2011 had an opening dedication of the salawat for the sake of the environment as well as to the Prophet Muhammad. In 2014 I returned to film another enactment.⁴² Like the previous one, it corresponded with a calendrical observance traditional to Java in which various forms of Muslim chant occur on certain nights of certain months. The ritual in Ramadan 2014 was a Selasa Pon, in which the first

chapter of the Qur'an, Al-Fatihah, is recited forty-one times. The Fatihah is the surah recited with each cycle of salat (which means it is recited seventeen times a day, adding up to all five daily prayers).

The dhikr was convened at Ilmu Giri after the *tarwih* prayers of Ramadan, which itself mixes prostrations with ritual audition of Qur'an, and also after a supererogatory nighttime salat called *witr* that followed after. The dhikr was led by H. M. Nasruddin Ch. The introspective and participatory nature of the dhikr lends itself to an intent of environmental well-being at this eco-pesantren, whose stated mission is sustainability and environmental care. Nevertheless, there was no explicit mention of the environment made during the entire ritual, which is exceedingly conservative of its traditional form.

However, as documented in a video recording,⁴³ H. M. Nasruddin Ch. himself identified the ritual as an eco-dhikr on the night of its observance in terms of a teaching that was both religious and explicitly ecological in its striving for general well-being. First, he framed the practice in terms of a regime of self-cultivation with classic Sufi concepts and terminology (e.g., calling it *mujahadah*). In the next statement, however, he identifies the quality to be developed khalifah or stewardship. The ritual, which he calls eco-dhikr, is interiorized (*batin*). H. M. Nasruddin implies that power of this affective alignment of internal order and cosmological order lead to environmental protection with words that translate, "After this, it is not possible to destroy the environment" because the ritual has "humanized humanity, naturalized nature, and divinized the Divine." In practice, such environmental intent is individualized and internalized, a normative feature of the ritual itself, which expresses a public, and even a globalized form of pious practice.

In both of the cases of Muslim environmental devotions, the environment has been introduced as a third agent with respect to the relation of the supplicant to the petitioned, perhaps as the primary beneficiary of prayer practice. However, rededicated intent is also overlayed, implicitly or explicitly, on traditional prayer practices that are not formally changed. This conservatism, along with fluidity of the introduction of the intentional dedication, environment, makes for a powerful basis, especially when compared to alternative modes of branding by way of an ideological statement or slogan. Viewed on levels of individual and collective community commitment, the eschatological and soteriological tradition of Islamic and Qur'anic piety, especially in Sufi tradition, characterizes this activity.

Sufi modes of piety also generated new environmental expressions. Preachers in Indonesia, including K. H. Thonthawi, used a Qur'anically coded sentiment of anticipated punishment and reward, for example, to foster environmental commitment. In this Qur'anic ecotheology, Islamic activists such as K. H. Thonthawi tended to fill in a modern environmental frame with this affective Qur'anic paradigm, invoking the present moment at which one realizes that the created world is changing, that it is already too late to alter choices in the past, which will now result in a certain fate. Religious scholar-activists develop such ontological and relational extensions beyond the phenomenal world, in the tradition of Al-Ghazali's fortieth and final book of the *Ihya' 'Ulum al-Din*, which cultivates religious sentiment in the present around the anticipated inevitable moment of death and/or resurrection at Judgment.

When Muslim environmentalists turn to such an eschatological paradigm to embrace care in this world, it is generally expressed according to one of two poles of feeling types. These correspond to Qur'anic "promise and warning," respectively. For example, in the lyrics of a *nashid* (religious song), composed by the highly respected kiai K. H. Affandi at his ecological pesantren in West Java and recorded at this site (Pondok Pesantren Al-Ittifaq), the words emphasize a present intervention in the form of cautionary and projected sentiment:

We will all regret
Suffer and weep
If/when this beautiful world
Becomes degraded and polluted
Come, let's all together
Care for and protect our world

Stop the destruction
And corruption of the earth
Humans will be buried
Their torment ever greater⁴⁴

Such anticipation of future regret is typical of Muslim religious emotion as it is cultivated in Indonesia for the sake of the environment as well as the world to come.

Back across the island in Central Java, and in another example of environmental teaching that draws on the same pious tradition, a widespread notion of “repentance,” popular in the past and the present, is deployed as an environmental ethic.⁴⁵ Iskandar Waworuntu, a convert to Islam, has lived his life in his native Indonesia, having grown up in a leading family of the tourist restaurant industry in Bali. He came to know about and to accept Islam after long study of English-language material. He was particularly drawn to Sufism, the devotional and mystical dimensions of Islam. His community, called Bumi Langit, is dedicated to permaculture practice and education and also serves as a restaurant and retreat center near Jogjakarta, Indonesia. The farmland was purchased relatively recently in the area of Imo Giri, where the tombs of ancient kings of Java are located, and the site is not that far from the unrelated Pesan Trend Ilmu Giri (the site of the Selasa Pon eco-dhikr), land that was also acquired not so long ago.

For environmental religious teaching, Mr. Waworuntu selects from established tradition a common practice that can be reworked with environmental understanding. In this case, these are expressions of “purification” and the related idea of repentance (*tawbah*), a kind of “change of heart” that is a first step of the Sufi path as well as a widespread popular trope in the Indonesian Muslim culture of piety. These themes have also been at the center of public messages of religious political culture since the fall of President Suharto and the New Order regime in Indonesia in the late 1990s. They are also commonly expressed in religious entertainment like televised dramatic serials (*Sinetron*).

Although I had come several times to meet with him, I interviewed Mr. Waworuntu formally one evening during Ramadan 2014, right between *maghrib* and *isha'* prayers as he was on his way to lead the Sunni communal prayer called *tarwih* at a local mosque. As recorded, part of what he discussed was a ritual formula to purify consumption, religiously and environmentally. He recast a widespread Islamic practice of “asking for forgiveness” as a performance of sustainability as well as the idea of religious purity. Purification is one of the necessary conditions of exoteric ritual law and practice, and esoterically it is a central tenet and practice of Sufism (Ibn Al-'Arabi authored an esoteric treatise entirely on “purity”/taharah, for example). Of course it relates to ideas of pollution in both the symbolic systems of Muslim and humanistic environmentalisms. According to Mr. Waworuntu, uttering *astaghfirullah*, asking forgiveness from Allah, may

purify, both spiritually and structurally, global production and local consumption. In everyday Muslim practice, the *istighfar* (asking for forgiveness) is one of the most common pious formulas, repeated in worship contexts along with praise of God as in a *dhikr*. For example, after *salat*, worshippers will commonly remain in place to utter a fixed number of repetitions of the phrase *astaghfirullah* (along with *alhamdulillah* and *subhanallah*, the latter two being in praise of God). It is also frequently heard in daily speech among Muslims worldwide. When used casually, it is customarily uttered when mentioning something of which there may be a religious attitude of disapproval.

Muslim theory and practice of religious repentance date back to the earliest period of Islam; they have also been particularly significant across the religious and political landscape of Indonesia since beginning in the era called *reformasi* in the last decade of the twentieth century. In fact, a significant share of contemporary religious music in Muslim Indonesia, as popular today as it was in the historical past, takes up this same idea of asking for God's forgiveness (*istighfar*). For example, performances of a poem, "Al-I'tiraf," a composition attributed to the famous poet Abu Nuwas (d. 814), are commonplace and also repopularized by big-name religious recording artists like Alwi Haddad, Jeffri Bukhori, and Opick. Other musicalized performances of contrition feature public weeping, such as by Muhammad Arifin Ilham. In the past decade, many such performances also deliver a message of social reform and social justice. This has been the case, for example, with Emha Einun Naguib (Kiai Kanjeng), a Javanese musician and poet and national star who is known for social critique that reworks Arabic devotional and Javanese classical standards and their instrumentation.

There are many types of religious purification in Islam (including *zakat* of almsgiving, ritual ablution, and so forth). Mr. Waworuntu advocates using the widespread pious formula *astaghfirullah* as a kind of powerful performative utterance as well as an invocation of dedicated commitment. Like pronouncing the expression *bismillah* ("In the Name of God, the Beneficent, the Merciful") in certain contexts (such as declaring meat to be *halal*/permissible for consumption according to Indonesian Shafiite conventions), here the formula *astaghfirullah* makes consumption licit in both a moral and an ecological sense. It also conveys a sophisticated environmentalist teaching.

In a videotaped interview, Mr. Waworuntu describes this as an act of protection and as a prayer for "detachment": in his words, this means a

separation from the “processes” and “products of industry.” He also casts the short, everyday prayer formula as a petition for deliverance from “oppression.” In this interview and elsewhere, Mr. Waworuntu has not voiced any explicit challenge or call to resistance to this oppression. Instead, Islamic ideals and intention build sustainable community that represents an alternative to what his group considers to be destructive spiritual and environmental structures. In this way, and echoing the manner in which performances of repentance and contrition are both personal and collective in Muslim Indonesian public culture, the environmental act of praying for forgiveness, highly individualized as the sincere experience of religious and moral purification according to the language of the goals of Sufi practice, affects a personalized social ethics of change within the context of a residential, intentional community.

Religious commitment in a universalized Qur’anic frame is expressed as Muslim environmentalisms not only out of hope to avoid disaster. As these examples indicate, it arises from accepting responsibility in the most profound way possible in this world for the sake of reward in the life to come. This framework, embedded naturally within a millennium of Islamic piety and practice, enhances theoretical perspectives of present secular environmental humanities largely through its expectations of community constitution. The system disseminates interiorized messages in Islam while engaging eschatological and even apocalyptic modes in a context of communal practice. Like other examples typifying Muslim environmentalisms that I encountered during fieldwork, such theory and practice for the sake of the future engages affectively in both horizontal and vertical dimensions, both *hablun min Allah* and *hablun min al-nas*.

Communities of Environmental Outreach: Dakwah

Examples from field study in Indonesia show how Muslim religious outreach is not just an extension of environmentalist messages, but may comprise religious action in itself as a form of *dakwah*. Messages of Muslim environmentalism are propagated publicly as Islamic environmental doctrine, constituting communities through this outreach. The expectation of institutionalized *dakwah* as a part of mainstream Muslim environmentalism in Indonesia, here called *eco-dakwah*, is pervasive across Indonesian

works like those discussed previously in terms of both law and science.⁴⁶ The theme also echoes strongly in material that circulates globally, such as the writing of Yusuf Qaradawi. Some of the most sophisticated Islamic eco-dakwah in Indonesia brings together eschatology, science, and community activism and speaks directly to critical theoretical and practical issues in environmental humanities, such as how to apprehend future planetary horizons of environment, and even unthinkable ones, within the ethical present.

Each of the texts treating Islam as religion, legal norms, and environmental science that have been introduced previously emphasize the imperative to dakwah, Islamic environmental outreach and teaching. They also stress dakwah specifically as a part of the theory and practice of Islamic environmental justice. For example, Ali Yafie lists environmental dakwah as part of *fardlu kifayah* and *haddul kifayah*, terms here meaning religious duty and proscription that are incumbent upon a community as a group. Yafie's book also stresses the need to build programs in religious environmental education or dakwah.⁴⁷ The 1997 volume *Islam and the Environment*, published by the Indonesian Ministry of the Environment, devotes its entire final chapter to the topic, "Making Efficient Use of *Dakwah* in Protecting the Environment." Typical of mainstream Indonesian academic dakwah theory of the 1990s in Indonesian popular and institutional settings, *Islam and the Environment* promotes *dakwah bil hal*, or doing "dakwah in action" (as opposed to mere *dakwah bil lisan*, in words alone). The level of sophistication of this treatment is consistent with that of dakwah theory as it is taught at the postsecondary level in Indonesian Islamic universities' faculties of dakwah, and it cites substantial academic research to support its findings.⁴⁸

The discussion in this particular source addresses the increased necessity for environmental dakwah to engage "modernization" (*modernisasi*), highlighting the need for there to be Islamic (and environmental) messages targeted especially at youth in order to compete with secular (and presumably nonenvironmentalist) messages. There are four pages dedicated to characteristics of Islam that provide such "motivation," which the authors claim otherwise to be lacking in environmental teaching. The book offers a list of principles of environmental ethics for preachers (*da'is*) on the final page, which are to promote *egoisme* or *individualisme* (meant to be positive qualities here, as in the sense of an ability to connect with others or an

environmentalist group as a responsible, self-determining individual); *humanisme*; *sentienisme* (meaning the capacity for sympathy or empathy with others); *vitalisme* (caring about life itself); and, *altruisme*.⁴⁹

Drawing on authority in another mode, an original eco-dakwah of the respected kiai K. H. Thonthawi Jauhari Mushaddad of Pondok Pesantren “Al-Wasilah” (who presented the eco-salawat already discussed) illustrates the connection of personal and collective commitments in this world and the next. Scholarly traditions of Qur’an, hadith, law, and education, the command for all of which this leader from West Java has national recognition, inform his teaching; he is renowned for his Islamic religious knowledge, in hadith especially, as well as his applied environmental activism. He initiated a reforestation campaign in West Java, collecting saplings in the front room of his own home and transporting them to sites on the back of his motorbike, where he would mobilize villagers in a *campagne* to plant trees. Over the course of interviews that spanned more than two years, K. H. Thonthawi explained his dakwah of Muslim environmentalism in a videotaped segment as an environmentalist preaching that he frames for the sake of Islam (as *agama*, religion) and explicitly with respect to care and connection to community.⁵⁰

Each time that I went to Garut, West Java, to meet with K. H. Thonthawi, he began explaining his preaching by pointing out that the people with whom he worked in the villages already understood the significance and seriousness of environmental issues. They are the ones affected already and they are “ready for anything,” like planting trees for reforestation, he said. According to Thonthawi’s thoughtful development critique, it was just the planners who still could not, or would not, understand what was happening. His teaching also contains elements that clearly advance religious commitments beyond secular environmental messages. Allah rewards sincere environmental care more than other religious action, he emphasized, because it is giving mercy, which God rewards with His mercy in turn. To explain this, K. H. Thonthawi would begin with the provocative statement that caring for the environment is more important than religion, “if the whole purpose of religion is really to improve people [*memperbaiki orang*].” The entry point for this process to begin, he said, must be the fundamental recognition that ecology itself is a moral problem.

After establishing these points, his teaching emphasized positive divine and ecological reward for environmental action, and the significance of

this over and above the added negative risks of irresponsibility. For example, K. H. Thonthawi quoted the following hadith about reward: “if one plants a tree or sows seeds, if then a bird or a person or an animal later eats from them, this is an action with the rewarded status of a charitable gift” (the report is found in the collections of Bukhari and Muslim). He compared the divine reward for planting trees to the considerable reward for establishing a mosque through pious endowment, and pointed out that the reward is greater for the act of reforestation. (And he added wryly as an aside that the mosques are all empty nowadays anyway.)

He explained that when he preaches Muslim environmentalism in this way across the countryside, the primary challenge is how to convey to villagers a *dorongan agama* (“religious impetus”) to environmental action. Just to know that there is such a reward (for planting trees, for example), and that such and such is exactly what it is said to be (and, implied, even if this were to be pronounced with the religious authority of a scholar such as himself), may still not be enough to get people to do anything about the environment. K. H. Thonthawi here is suggesting more than that nonreligious solutions fall short, or are not enough; with this, *religion* itself as conventionally understood is not enough to respond to the moral magnitude of environmental problems or even for religious success in terms of ultimate accounting. Experientially, he said, people actually need to *feel* something to become motivated. And his point went beyond this: this feeling itself is in turn rewarded by God (following the hadith on God rewarding mercy). This feeling is also the empathy that motivates environmental action in the first place.

To explain all this in more detail, he retold a story found in hadith, in which a “sex worker” (the expression he used was in English; in the original accounts related in Bukhari’s collection the subject is just “a man”) brings water to a thirsty dog. According to the report, the Prophet Muhammad said that all her sins would be forgiven for this act of loving-kindness. The reward for the woman in the hadith was not just on account of her action, K. H. Thonthawi said that he would preach in his dakwah, but that God rewarded her on account of her *rasa kasih-saying kepada makhluk*, her “feeling of care and concern [*kasih-sayang*] for creatures [*makhluk*].” (I have documented other national preachers using this hadith as environmental dakwah as well.)⁵¹ The most important aspect for obtaining divine reward, and the most rewarded aspect of caring for the environment, was a sentiment

that K. H. Thonthawi called *saling menyayangi* (“caring for one another”). The Malay root word for “caring” in this expression, *sayang*, has connotations of tenderness; it can mean “to feel sorry for (to pity),” and it is also an intimate term of endearment, as in parenting a child or in romantic love.

An example K. H. Thonthawi provided for this environmental sentiment was that he makes the effort to show up at all the weddings in the community. And, he added, he always dances. He is famous, he indicated with apparent satisfaction, for being the *kiai* who always “gets up and dances at all the weddings.” The first thing I had ever heard about him, when talking to leaders at a large eco-pesantren complex in South Jakarta (Darul Najah), was that he was known among the people for never removing his West Javanese traditional headwear (*bendok*), to the extent that he was widely known by a popular nickname, *Kiai Bendok*. I heard that he would not take it off, not even when invited to wear a formal *peci* (Indonesian black cap, also called *songkok*). K. H. Thonthawi brought this same point up about headwear to me directly in our conversations as an example of commitment in solidarity with community, a sympathetic feeling of *saling menyayangi*. He then cast this same feeling and community connection in light of environmental activism. Furthermore, he concluded, environmentally obtained mercy achieved through such means was actually the “closest door to heaven” (*pintu terdekat masuk surga*).

At this point K. H. Thonthawi would continue to describe his environmental *dakwah* by going on to clarify that, in preaching, he would stress that merely by repeating everyday rewarded religious actions by rote, like prayer, is not enough to guarantee entry to heaven. Muslim environmentalism, representing to him a more sincere search for reward in the life to come, represents an even deeper commitment and meritorious action. The ultimate goal, as in the Qur’an, is to return to the original garden, the landscape of Adam in heaven as in the Qur’an, as K. H. Thonthawi explained in the videorecorded interview. For this, good deeds (such as prayer, *salat*) can only get the pious so far, he said. These could only grant assurance that one will be a “candidate” (Ind. *calon*) for heaven in the afterlife. The final determination (*keputusan*) is Allah’s alone, and comes through His mercy (*rahmat*). And the way to obtain this “mercy” is through showing loving-kindness to his creatures, precisely through Muslim environmentalism.

K. H. Thonthawi implicitly adopts a pietistic mode of religious and environmental *dakwah* that resonates with Sufi teachings about who will be

among a special group of the rewarded who may also “attain” a special place in the hereafter (e.g., Q. 56:10–11). He explained, if you love and care for God’s creation, if you care for the environment sincerely, you may get this “*ampun Allah*” or “forgiveness of Allah.” This expression is cognate to the Arabic *istighfar* and related to “mercy” in the sense of a merciful reception (“forgiveness”) on Judgment Day. And with this, K. H. states, you may enter heaven by His will. On the basis of this reasoning, K. H. Thonthawi called Muslim environmentalism the “ticket to paradise” (*tiket surga*). “No one can ever buy it,” he cautioned, but it may be granted by God on the basis of His mercy, upon His judging the mercy one has shown to other “creatures” (i.e., the environment).

If this is a kind of “hope” that leads to environmental care, it is also a heartfelt calculus of cause and effect that is predicated on the ultimate end of this world. In this eco-dakwah, as developed by a leading religious scholar in Indonesia, environmental action determines the extension of this world into the now unknown state of the experience of the recreated order. This would include the ultimate goal of return to the original environment (the garden) in the transformed world to come. K. H. Thonthawi has here reversed the view, from asking, “what can religion do for an environmentalist cause?” to “what does environmental care do for religious reality?” Community engagement is integral to the expression and manifestation of these ideals, most of all when this expresses the capacity for an individual’s salvation through service. It is not only the case that community is “imagined” in the course of piety, to invoke the old phrase from Indonesianist Benedict Anderson, but that cultivation of connection to community is the intentional focus of, and is also intrinsically formed by, pious practices of Muslim environmentalism (including, in K. H. Thonthawi’s case, dancing at weddings, planting trees, issuing fatwas, repeating prophetic ecodévotions, political advocacy, and community mobilization).

When the explanation of dakwah concludes, and K. H. Thonthawi starts to express his plan for environmental action, he focuses neither on ritual practice nor on the environmental fatwas he has helped to formulate, nor any more fine points of ecotheology. He prefers to discuss and critique development programs. (K. H. Thonthawi’s start in environmental engagement began with an interfaith seminar hosted by the WWF on Bali.) When viewed from the perspective of his own teaching, this is a Muslim environmentalism that is no less “religious” to K. H. Thonthawi than Arabic

invocation and supplication. He himself wrote a booklet on local development practices, emphasizing community engagement.⁵² He based this program in part on his own grassroots work organizing and implementing reforestation campaigns in West Java in order to prevent landslides; a similar initiative was carried out at Pondok Pesanten al-Ittifaq, where even the mosque's pillars are hewn tree trunks following the design of K. H. Affandi (K. H. Thonthawi's former teacher). K. H. Thonthawi asked me if I would take his self-published booklet to Jakarta—that maybe someone there would be interested in it. He seemed dismayed the development agencies had ignored previous proposals, since he knew from firsthand experience what would work in the community, he said. He would typically end our conversations along the same lines they had begun: stating that the people understand the problems and what is needed to be done, but it is the only the environmental and development planners, like government agencies and NGOs, who do not, or will not, reach out and intervene to make a difference.

K. H. Thonthawi's environmental dakwah is predicated on an ethics of consequence for human conduct as religious enactment. For this, environmentalism (as mercy to other creatures) may be the determining criterion in order to attain the habitation of the garden (*al-jannah*). A constitution of community comes directly through the affective change of "heart," as the site of such realizations. To recognize and act upon these connections in a tangible way, implementing programs with real impact on the environment and human lives, is most profoundly K. H. Thonthawi's environmental dakwah, as a matter of *dunia* (the world) that corresponds to the truth of *din* (religion).

Orientalism/Occidentalism, Erasure, and Authenticity in Environmental Humanities

Over the course its chapters, this book's discussion has emphasized unseen dimensions of Muslim environmentalisms, such as nonhuman ontologies in this world as well as the world to come. This chapter shows that the strains of Sufi piety that underlie these expressions have been neglected in the inherited orientalist tradition of European humanities with respect to Islam and as it has subsequently been propagated in American and other

Anglophone contexts as well. K. H. Thonthawi's popular dakwah, for example, relates directly to these religious dimensions as environmental activism, community building, and national and international development initiatives. The question for environmental humanities becomes how to see or recognize Muslim environmentalisms in movements and activities like those that are self-consciously evident on the part of Muslims, and yet, as the case of Seyyed Hossein Nasr suggests, apparently still liable to be overlooked in environmental humanities.

In important respects, Muslim environmentalisms could be just like other global efforts to address disparity with respect to struggle for acknowledgment and attention, as within mainstream environmentalist or academic discourse when it takes the approach of environmental justice to advocate on behalf of the marginalized. In addition, by virtue of its Islamic character and content, Muslim environmentalisms also convey an identity-specific aspect of what is socially and politically sidelined in the globally dominant Euro-American mainstream, as within the new field of environmental humanities. In one sense, this is because religious environmental teachings engage communities that are themselves "unseen"—nonhuman beings, generations to come, and the dead of the past and the future (among all of whom there is to be a face-to-face reckoning at the end-times according to the Qur'an). In another sense, a misrecognition extends from out of the colonial history of global Muslim-majority societies. This would be the impact of European and American imperialism that has dominated practically everywhere across "the Muslim world," Asia to Africa. Naturally, ongoing postcolonial effects render many of the structures of Muslim communities distorted under a neo-orientalist gaze. For example, this legacy continues to manufacture discourses of authenticity around boundaries of the orientalist/occidentalists imaginaries, "East" and "West." As Kecia Ali has discussed elsewhere, it would even align Muslim discourses of environmentalism along these constructed distinctions, and this is even evident in the case of Nasr too, although as a different configuration.

One result of bias propagated along these lines can be not just the erasure of religious teachings but in fact the awareness of entire living communities and practices of Muslim environmentalism. This comes at a time when theorists across humanistic fields are asking, within the late capitalist or postcapitalist landscape, what *are* relational, ethical, and environmental formations (and thus what *is* the environment apart from a colonial

construction like “wilderness”)? Their secular responses often coalesce around imagining human and interspecies communities that are largely resonant with Muslim environmentalisms presented here, and that the intellectual contours of Islam may even shift significantly. For example, Anna Tsing writes on mushrooms (imagining “capitalist destruction and collaborative survival within multispecies landscapes, the prerequisite for continuing life on earth”). Meanwhile, Donna Haraway publishes on “kin” like ants and acacia plants (in order to “stay with the trouble” of the “tentacular practices” of what she calls the Chthulucene); this happens by “comaking” being and “learning to be truly present, not as a vanishing pivot between awful or edenic pasts and apocalyptic or salvific futures, but as moral critters entwined in myriad unfinished configurations of places, times, matters, meanings.”⁵³

Muslim environmentalisms propose modes of community connection as creatures through emergent ethical, ontological, and social-structural environmental realities. They do so with respect to consequential relations cognate to now prevailing working definitions of “the environment,” compatible with other humanistic discussions such as environmental “precarity,” as well as scientific expressions like disaster.⁵⁴ In an ecofeminist register, problematic ideologies like “saving Muslim women” and the extension of Western bourgeois feminism to global others would need to become secondary in order to learn from Muslims how Islam professes key ideas like the coexistence of creatures.⁵⁵ Material in this chapter, emphasizing ritual, is not unlike what gender theorist Judith Butler has come to theorize as community formation through a “performative theory of assembly,” performance itself constituting community (although with a differing notion of what are “rights” and the “public sphere” with respect to precarity).⁵⁶ Of course, notions of ecological community have long been the referent of philosophical environmental ethics, especially in a Marxian mode of political ecology, in works too numerous to mention.

To recognize Muslim communities as constituted in and through such structures outside the nation-state model that still dominates sociologically the study of Islam *and* politics (also known academically as political Islam) is another next step, not just to learn *about* Islam but also for learning *from* Muslim environmentalisms. This resonates with critique like that made by Carrie Rosefsky Wickham in her landmark study of the Muslim “parallel sector,” as well as later work on the Muslim politics of the “everyday” like

that of Asef Bayat. Wickham's point is not just that Muslim communities are alternatively constituted to "civil society"; she also shows how such groups have been overlooked in social-scientific analyses of the Middle East overall.⁵⁷

Environmental communities constituted for the sake of Islam, such as K. H. Thonthawi's preaching and activism, are generally not rendered visible in mainstream social sciences or approaches in environmental studies largely because they in fact correspond so closely to the very same patterns that have often relegated "Islam" itself into the marginalized discourse of fields including religious studies and global development. The latter is a form of criticism that K. H. Thonthawi himself made strongly as a component of his teaching on environmentalism. Dakwah like his represents the committed convergence of aspects of Muslim environmentalism: justice in this world and the next, environmental teachings on creatures and resources, ethical and scientific knowledge, as well as encounter with the reality of an unknown future on scales of the individual and also the community.⁵⁸ These readily connect to environmental justice as a system of consequential relations.

Despite the centrality in Qur'anic teachings on disparity (with frequent mention of "the orphan," "the destitute," and "the marginalized"), questions of prosperity and potential are still not highlighted as categories in the current academic or popular study of Islam. These tend to be restricted by old European questions and projections to areas like gender and conflict. Even in the case of cutting-edge North American academic activism, identity politics more than economic justice still dominates treatments of "progressive Islam."⁵⁹ Alongside this, there has been a relative decline in developmentalist rhetoric within global Islamic messages themselves in recent decades, a departure from the influence of socialism associated with political voices in the Arab world and elsewhere in the mid-twentieth century.

The erasure of entire registers of Islamic social activity and activism is an issue that has long been acknowledged in the academic and social-scientific study of Islamic philanthropy, including disaster relief, as discussed by Jonathan Benthall and Jérôme Bellion-Jourdan in their ground-breaking book *The Charitable Crescent*. Benthall and Bellion-Jourdan claim that ideational factors caused a distortion in the academic study of global Muslim aid, whether considered transnationally or locally.

Muslim philanthropy tends to be overlooked (in studies of the Arab-Islamic world) because it has been occluded by politically directed frames such as civil society. Furthermore, the authors explain that “religion-based associations,” such as mosque and zakat communities and small-scale Islamic charities, “would appear on the whole to satisfy the criterion of cultural embeddedness more than do NGOs constructed after Western models.” But, because such networks tend to be “informal, vernacular or grass-roots practices, such as tribal traditions of conflict resolution,” they often go unrecognized in the theory and practice of development studies.⁶⁰

The capacity for academic approaches to grasp global Muslim phenomena related to community building, from pious endowment to environmentalism, has been impaired over the past two decades because of additional ideational factors. In popular discussion of Islam in Muslim-minority societies such as the United States, starting in the George W. Bush era and before, both an implied and sometimes official “war” of ideology and its companion, a presumed threat of violence, overshadowed long-standing questions of social and economic capacity in Muslim lifeworlds of Asia and elsewhere. (An exception to this was the Arab Spring uprising in Egypt in 2010, yet only occasionally was this portrayed in English-language media as a movement of economic justice, and rarer still as a result of environmental impacts like food insecurity.) The overuse of ideology to explain issues of inequality and environmental justice in Muslim social experience, even as religious issues, has been supported by the relative lack of theorization of religion and development and Islam and development in the fields of development studies and the academic study of religion.

Finally, orientations to environmental justice movements grounded in Islamic religious practice have tended to be overlooked in academic studies of contemporary Islam, both social-scientific and humanistic, because the call for economic justice has diminished in Muslim popular rhetorics. This could certainly be said to be the case now when compared to previous decades such as in the heyday of nationalist socialism, Arab and otherwise, and related Third World and nonaligned movements in the mid-twentieth century, represented well by the Afro-Asian Conference of 1955 in Bandung, Indonesia. New theory of postcapitalism in environmental humanities promises better to acknowledge the dynamics of Muslim environmentalism, particularly aspects of community formation. Recent work seeks to theorize community in new formations in environmental humanities, as in

work by scholars in the anthropological tradition who are also known for feminist theory. However, tendencies that would overlook Qur'an, Sufism, ritual (and, for that matter, the Islamic character of world areas like eastern Asia) must be overcome first to afford a space for Muslim environmentalisms. To address such erasures, European humanities should now decisively move beyond essentializing orientalist and occidentalist tendencies in the study of modern Muslim social change.

Despite the fact that such binaries have long been viewed to be outdated in postcolonial theory (as in works by Arjun Appadurai, Homi Bhabha, Partha Chatterji, and others on South Asia), a reified duality of East/West nevertheless still shapes much globally popular and even academic presentations of Islam. Almost a millennium ago, and long before the era of European colonialism, Ibn Sina and the Persian philosopher Shihab Al-Din Suhrawardi used categories of "occidental" (exile) of and "oriental" (illumination) to express cosmological paradigms of knowledge. Seyyed Hossein Nasr draws on figures like these in advancement of his modern ecosophy. However, Nasr's own humanistic reification of East and West reflects enduring colonial structures of knowledge at least as much as the imaginaries of a distant medieval past.⁶¹

Bias about authenticity runs throughout Nasr's explicit critique of the West as well as his portrayal of Islam. Nasr's occidentalism also seems to share more with an American counterculturalism of the 1960s than with the sources of the contemporaneous "Islamic alternative" (a term commonly used in the literature that captures aspects of ideologies like Sayyid Qutb's). Nasr's critique of the West does take on something of the tenor of anticolonial writings, chiefly in its rejection of selected aspects of "science," deemed to be "Western" insofar as they are "modern" or "technological." In his article of 2003 in the volume *Islam and Ecology*, for example, Nasr makes a point about the contrast of East and West at the start of his "outline of solutions" to what he describes to be the problem of "the environmental crisis, which threatens human life itself, [and] is of the utmost urgency precisely because of the rapidity with which the natural environment is being destroyed." He goes on to make reference to "the Muslim mind," "the Islamic world," and "authentic Islam," as follows:⁶²

Where the Islamic world differs from the West is that the Western scientific worldview—which its reduction of both human beings and nature to a set of

complicated molecular structures bereft of any sacred significance, except in a sentimental sense—has a less tenuous hold upon the Muslim mind than it has in the West, which has had several centuries of confrontation with the materialistic and qualitative view of nature. The first step in the Islamic world must be to criticize this stifling scientific view of reality and to demonstrate why it is opposed to the authentic Islamic and more generally religious point of view as such.⁶³

Unlike Sayyid Qutb,⁶⁴ however, and instead resembling more the essentializing neo-orientalism of Samuel Huntington and Bernard Lewis by way of naturalizing the colonial imaginary of East and West, Nasr does not include critique of colonialism or social justice as a significant aspect of his understanding of modernity at large.

In the decades following the 1970s, the academic trend in the study of “Muslim societies,” such as in sociology and politics, has shifted away from a concern with “modernization” to a focus on Islamic doctrine, and then doctrine only of particular types. Global Islam and Muslims have been indexed with respect to labels like *fundamentalism*, *extremism*, *Islamism*, and even *terrorism* in popular and official channels, while academics debated the range of applications of terms like *Wahhabi* and *Salafi*, as if historicizing schemes, functioning as ideological labels, could offer implicit explanations. Whether or not it advances a political agenda, this practice has continuities with long-standing orientalist projects of faceless classification in knowledge about Islam, famously directed toward the management or control of a perceived or real threat of violence that, consistent with this view, Muslim actors were expected to perpetrate. For example, writing as far back as 2003, scholars noted that considerations of Muslim aid tended to focus on how organizations provide social services as a conveyance for doctrine, rather than the actual or tangible forms of permanent, structural, social, or environmental change such programs might effect.⁶⁵ Environmental humanities here has an opportunity to take on leadership and to foreground approaches to the study of Islam in global Muslim realities and concerns, ones shared by citizens of the entire planet.

* * *

To view Muslim environmentalisms in terms of community encompasses previous discussions about relational creatures and resources, norms and

principles for human limits and possibilities, and tradition-bound transformations through committed practice and action. The sense of community is not one that is strategically contrived for political mobilization but embedded in practice that flows easily between the overtly “environmental” and the religious practice of the everyday. Such communities of Muslim environmentalism are difficult to recognize due to developmentalist structures and other academic and disciplinary conventions present in both the study of both Islam and environment. These barriers to the religiously and environmentally unseen affect cutting-edge postcolonial theory in the environmental humanities, even as these fields have much to gain from granting belonging to global Muslim perspectives. For example, the approach of a leading voice of contemporary Muslim environmentalism of the past fifty years, Nasr, still corresponds closely to the Euro-American imaginary that would downplay Muslim experience rooted in religious community with respect to the environment. Nasr’s own discourse on authenticity, hardly a move of Islamic self-exclusion, nevertheless indicates the need for a nuanced reconsideration of hybridity about “East and West” in fields like religion and ecology—if not Islamic studies.

In classical Islamic religious theory based on the Qur’an, the heart is the site of relational process, representing a spiritual principle for environmentalism as well as a scientific/alchemical and political one. Modern Muslim reformist thought, at times vociferously non-Sufi, still connects moral conduct to society and social justice with transformational multivalence. Ritual repetition that is more or less Sufi in character in religious environmentalist modes amplifies established patterns of worship and their Islamic authority; while preserving such historical continuities, environmentalist intents reorient collective action toward real-world challenges of injustice, though still always in reference to consequences in a world to come in such cases. Islam is not only deployed in the service of environmentalist objectives but also the reverse, as with Muslim environmentalisms that view the relations constituted by the environment to be the primary “aims of religion,” ethically, politically, and expressively.

Instances documented in this chapter illustrate Muslim environmentalisms as moral commitments, much as that which is sought by way of the ethical aspirations of secular systems of environmentalism, including the present academic disciplines of environmental humanities. The reason these religious perspectives have not been more visible outside Muslim frameworks

is not a problem with Islam's self-presentation, nor can it any longer be explained away by the allegedly obscure nature of the information—which after all represents foundational and Qur'an-based expression for what is projected to be a quarter of all the planet's humans in the not so distant future. Nor can it be marginalized because concrete evidence comes from Asia; this is where the vast majority of the world's Muslims reside, east of the Indus River to the Pacific. Rather, the relative invisibility of Muslim environmentalism in environmental humanities is the result of limitations that have a long history in European imaginaries of an Islamic other and, as the case of Nasr shows, enduring presuppositions about what counts as environment. The contribution of Muslim environmentalisms to environmental studies, if nothing else, is to encourage a reassessment in the fields of the humanities.

The particularization of humanities as environmental opens the question, how else are “the humanities” also qualified—such as through Eurocentrism? Unlike eastern Asian thought, “discovered” by Europeans through colonial contact (and marking a major shift in religious studies with respect to the “East,” as with F. Max Müller and others), or systems colonized elsewhere by Europeans (Pacific, Americas, MENA, sub-Saharan Africa), however, Muslim medieval writings are the direct precursor to much European philosophical and scientific tradition. Such a reclamation can make a fragmented intellectual identity whole in order to relate the full story, if not tell a “new story,” representing a process of recovery from the blackout in mainstream tellings of what came before Europe's Enlightenment and what were the factors of its Renaissance. Alongside environmental history, Anglophone ethics could likewise advance beyond extensionist bestowal of standing and personhood about what is the matter at hand, and even attenuate paternalistic tendencies of the inherited language of “rights” itself as a primary mode to address environmental systems inside and outside legal frameworks. For environmental humanities, it can restore the broken ethical language that grasps at piecemeal metaphors from science (neither Lovelock's Gaia nor Crutzen and Stormer's Anthropocene were intended as ethical theory when they first appeared in print). It can also make conscious the implicit Victorian moral sentiment on which Anglophone expressions fall back, and the complementary bureaucratic and technical environmental agendas of problem-solving that prevail in environmental studies today. The postmodern jumble resulting from Latour's

parliamentary bricolage of ecological “things” in a rudimentary phenomenology meets the sophisticated philosophical legacy of empiricism and experiential knowledge in applied Islamic tradition.⁶⁶ Islamic environmentalism, “planetary” inasmuch as Muslims inhabit every geographic region of the world, is at the core, not the periphery, of humanities—environmental or Islamic or even including all—and can contribute to these fields’ intellectual and ethical repair through its constructions as much as critique.

SEVEN

From This World to the Next

HUMANISTIC ENVIRONMENTAL STUDIES have been shaped by the notion that there is a crisis at hand, and, underlying that, there is moral problem (most generally, a lack of awareness or concern) at the root. Contemporary secular environmentalisms seek to address such fundamental ethical problems when they turn to Islam as a religion of the world to innovate environmentalist messages.¹ Academically, Muslim environmentalisms do shape a kind of ethical framework that environmental humanities, secular and religious, seek, implicitly and explicitly, but in rather different terms. They offer the sort of model environmental humanities may strive for in order to understand the connections of environmentalist commitments to theory and practice in areas like aesthetics, ontology, and everyday ethics. For this, Muslim perspectives provide not just a complement to existing models, like that of the Anthropocene, but also a critique.

Beginning with the environment as the conception that requires translation and explanation (rather than fitting Islam into any preset environmental framework), Islam as presented by *Muslim Environmentalisms* recenters the very idea of the environment and should reshape some prevailing understandings in environmental humanities along the way. For example, Muslim materials model how to apprehend the environment coherently as simultaneously a scientific and a moral field. Such a viewpoint also illuminates other core principles that are sought through humanistic study of the environment today in addition to this, including new ways

to understand the unseen in relationship to the phenomenal through relations of expressed symbol and empirical science; the imagination of aspects of unanticipated and even unthinkable worlds to come, such as projected future climate realities, and how these connect these to the lived and moral present; and sensible and natural extensions of social and environmental justice to everyday intentional experience and practice.

Fields of environmental humanities increasingly shift the category of “environment” away from objectified nature as well as from being an object of positivistic science. Instead, the environment is cast as human-world interaction in some form. Consistent with such a relational perspective, practical Muslim environmentalisms add an inherently consequential dimension. These extend from Qur’anic notions and are conceptualized and practiced across areas of Muslim religious thought and practice. Implications of these consequential relations refocus established critiques in environmental humanities like anthropocentrism onto constructive ethical concerns such as communities and resources of sentient and nonsentient creatures, *makhluk*. The wider implication of this is not that all environmentalisms of Muslims are religiously Islamic, but rather that all environmentalisms—religious and otherwise—are ethical commitments.

This book has drawn on a full spectrum of Islamic religious material like scripture, jurisprudence, science, and art, along with social and political responses to real-world conditions, to recast a postcolonial and global notion of environment out of dominant Euro-American structures that include “crisis” and “problem-solving.” Like Egyptian scholar Yusuf Qaradawi’s book on Islam and the environment,² accepted categories for the study of religion structure the analysis, only here with respect to religious studies, not formal *‘ulum al-din* (standard religious sciences). After Kay Milton and other scholars of Muslim environmentalisms like Foltz and Quadir, viewing intentional commitments called environmentalism shows the correspondence of whatever is said to be the environment, like applied norms of human interaction within Muslim religious accounts, and the phenomenal world itself. This study has thus not had any need to cast Islam through preexisting environmental key words like *stewardship* or *balance*. As with the analysis of contemporary scholars trained in systematic approaches, such as that of Izzi Dien, and disciplines of rhetorical study, as that applied by Tlili, it has also not fixed the idea of the environment for Islam, just as it has never been fixed in English-language humanistic study overall.

Emergent patterns have been examined coming out of Muslim writings, experiences, and studies and as guided by ethnographic methods.

Shifting frames for the category environment reveal different facets of the concept in Muslim theory and practice. For example, there are literary and Qur'anic treatments of environmental habitations, reinforced by legal and political cultures and precedents of resource management. And, scientifically and aesthetically, the environment represents an empirical system of symbols, like Qur'anic signs that share in real and imaginal modalities, and are thus subject to experiential study and knowledge. For specifically Islamic religious commitments, ethnographic examples from firsthand fieldwork recounted in this book indicate how some pious Muslims who identify as environmental leaders and activists expressed environmental notions as the relations of *hablun min Allah* and *hablun min al-nas*; across diverse domains of authority and activity, the environment that may matter most is the life to come, the conditions of which are determined by present relations. Such a consequential perspective may continually orient and anchor environmental thought and activism, as toward justice, in real-world circumstances and relations.

Examples in the book have touched on contemporary cases of Muslims' interaction with industries of resource extraction, issues in waste and water management, wildlife conservation, and responses to natural disaster (even that with anthropogenic causes) like fires, flood, and drought, along with greater issues of climate crisis. Drawing on the author's fieldwork in island and mainland Southeast Asia, the book has also explored Muslim environmentalisms within a region that is especially ecologically vulnerable, including threats to biodiversity through species loss, as well as processes like deforestation, severe weather events, and sea level rise and ocean acidification. To consider communities and perspectives of Islamic experience in the region has meant sifting through paradigms of orientalism, occidentalism, and developmentalism to perceive social systems affected disproportionately by worldwide inequalities. This has put a particular emphasis on qualities of the indeterminate and unpredictable as aspects of ethical responses to environmental change.

The first chapters began this book with a presentation of how Islam has been cast into secular environmental frameworks; subsequent chapters went on to show how global Muslims of the past and present express the environment as religious commitment. This does not represent a teleological

progression toward a projected end point of authenticity as much as it does an incremental breakdown of dominant humanistic categories. Initial case studies concerned a treatment of world religions and other developmentalist approaches to Muslim messages, such as projects of international NGOs. These included initiatives in Islamic law like environmental fatwas that are supported by Muslim and non-Muslim agencies. The discussion next turned to Islamic traditions of theology and jurisprudence that present environment as resource management, drawing on Muslim traditions of environmentalism before the twentieth century to reframe the presentation of Islam *and* the environment from Anglocentric frameworks now as a system of participatory activism for human creatures.

Turning to Islamic humanities, and drawing on theory of symbol and experience from influential classical sources and contemporary academic theory, illustrations including water and animals showed how liberal arts, like literature and especially the sciences, link the real world to an ethics of imagination. This bonding accounts for empirical transformation and change in material and biotic conditions across a coherent religious-ethical field, such as that structured by Qur'an and its diverse, discursive methods of study. The book's concluding discussion has drawn much on ethnographic fieldwork about environmental ritual and activism. This explains further how present-day environmentalist mobilization of community networks is grounded in Islamic continuities and connections, an insight that has invited new ways of seeing others in humanistic environmental study, while apprehending with more depth cutting-edge questions such as how we will all now live with the unavoidable conditions of devastating environmental destruction.

Combining interdisciplinary fields of religious studies, Islamic studies, and environmental studies, six main conceptual summary points of the arguments across the book's six chapters are as follows:

- The environment is an ethical construction through environmentalism. There are Muslim environmentalisms that offer multivalent and global constructions of what is the environment for the environmental humanities; not only are these older but they are also possibly more robust frameworks than notions of the environment growing out of the national experience of the U.S.

- Mainstream environmentalism and its construction of Islam and environment inducts Islam into messages with a colonial past through structures like world religions and global developmentalism; the resulting hybrid formations, correlating strongly with the non-Muslim systems from which they derive, circulate globally inside and outside Islamic religious settings.

- Muslim environmentalism with a deep authority in religious and textual systems conveys guidelines for resource management through Islamic jurisprudence (fiqh); in addition, varied Muslim readings of sources, for example, in normative Islamic religious sciences, posit an ontology of creatures in relation. This constitutes the environment that makes the conditions for Islam in modern legal formulations, including environmental justice.

- Such frameworks cast Muslim environmental ethics with respect to ultimate limits and accounted relations; these include eschatology and notions of environmental reckoning in this world and the next. Religious law and ethics, science and symbolism extend consequential relations deeply into both social and soteriological dimensions.

- Empirical knowledges in Islamic traditions account for the unseen and imperceptible through experiential symbols that are scientific, moral, and aesthetic—and thus may accommodate the indeterminacy, ambiguity, and precarity of real-world and future environmental conditions. Symbolic interpretation is an established religious language operationalized by environmentalists to apprehend environmental realities of the present and future.

- Evidence shows the committed Muslim environmentalists studied here to express a process and a practice of community making in Qur'anic frameworks of both horizontal and vertical relations; however, persistent orientalist tendencies may still occlude recognition of these aspects of Islamic tradition within Anglophone study. Their helpful implications for disciplines of the emerging academic area of environmental humanities call for effortful consideration.

The particularization of humanities as *environmental* humanities loosens the deadlock on its Eurocentrism in ways perhaps unexpected from a project of decolonization. This is because Muslim environmentalisms show what Islamic humanities, not as a qualification or inclusion but now a

participant, has really to offer the wider field of environmental studies. All the subfields of environmental studies (biological, physical, social scientific, and humanistic) have intellectual roots in Islam. The book now concludes with comments that are critical and constructive with respect to disciplines of humanities, such as implications for seeing “the environment” as an inherently ethical concept. This comes along with an assessment of what order of coherence may be expected from summary conclusions about Muslim environmentalisms.

Environmental Humanities: Critique

The book has addressed the emerging fields of environmental humanities through both construction and critique. With the perspective of the history of religions along with Islamic studies and Asian studies in humanistic environmental study, each chapter offered some form of critique to present-day environmental humanities. This includes criticism of universalized pluralism, which subjugates Islam under monolithic frameworks; development critique coupled with postcolonial perspectives on orientalism in viewing Muslim systems; the very notion of the environment itself, as in popular academic frameworks like the Anthropocene; how environmental science blends, or does not, with moral concerns; the functioning of environmental symbols, strategically, religiously, and otherwise, in order to apprehend precarity and uncertain futures; and humanistic fields’ conceptual challenges and weaknesses overall in reconciling environmental ethical frameworks with ultimate planetary ends that loom existentially on the horizon.

Two critical themes for environmental humanities have been provincializing Anglocentrism and making sense of religion. First, the perspectives of this book challenge fields in Anglophone environmental humanities to advance further even than it already has beyond the legacy of its Eurocentric heritage. Simply by taking more widespread subject matter into account, acknowledging work globally in non-European languages, is a good beginning. This could also mean recognizing the intertwined histories of Muslims and Christian Europe, as in the genealogies of the very fields that have shaped environmental philosophy and science, to the extent of acknowledging how European intellectual traditions may find

their own roots partially in Islam. It could mean also taking seriously the autonomous humanistic tradition in Islam, and to the degree that it now points to new theory and method for environmental humanities beyond just a fulfillment of inherited colonial frameworks. For the environmental humanities, Muslim environmentalisms would therefore no longer represent a kind of diversity to appreciate, or merely a pluralistic inclusion for the satisfactory completion of a total “global perspective.” Moreover, differences in Muslim views would not be cast as an alternative to mainstream environmentalism and its ongoing romantic-colonial heritage, but would be central to the main conversation. This might even change the subject away from explaining Islam to accepting environmental humanities’ own need for critique with respect to the legacy of nineteenth-century European perspectives.

Second, both the method and substance of the study of religion (and specifically in regard to the study of Islam) challenge environmental humanities to articulate legibly and systematically its claims about ontology, precarity, nihilism, and so on, as they are increasingly promoted in an existential key. For example, the basic analysis of symbol, on which scientific representation rests, if not all human culture (as some cultural anthropologists once claimed), draws a meaningful connection of material to non-material through what has been termed the *religious imagination*. The apprehension of environmental problems to the scale of annihilation (as in the horizons of present-day environmental humanities) are commensurate with such religious scope and dimensions. While faith-based truth-claims would be unprovable, fundamental phenomenological method in religious studies like “bracketing” (*epoché*) nevertheless guides forward sensible conversation about the ineffable that can engage such an expanded epistemological scope in a nonconfessional register. Just as Marxisms and feminisms long ago opened the way for analyzing committed normative and ethical claims in environmental studies, this book models such an approach to religion, relying on long-accepted approaches from the history of religions.

“All explanations,” or theories about religion, “are partial,” Jonathan Z. Smith used to remind his students frequently in the classroom when teaching about the limits of “reductionism” in the history of religions. Material on Islam offers an invitation to theorize religion in entirely new ways for environmental humanities. For example, in the first pages of chapter 1, a

partial explanation of what is the environment is already expressed in terms of fundamental ethical relationships like “power and protection” (after Nicola Tannenbaum), as in the expressions for safety (*salamah, keselamatan*) sought on the slopes of Mount Merapi. Above and beyond providing an improved sociological or anthropological report, history of religions offers a powerful disciplinary framework to understand how such environmental perspectives resonate throughout relevant Islamic sources including the Qur’an. For prevalent academic notions of crisis that have reached apocalyptic environmental scales since the nuclear age, and environmental humanities turning its study to anxieties like mass species extinctions and catastrophic climate change potentially ending human life on earth, competent religious theory of any type links ethical frameworks of relations from the present to the “no-analog” future, the known to the unknown, the controllable to the categorically uncontrolled.

The Environment as Ethical: Construction

Critical concerns also point to constructive directions for environmental humanities going forward. Muslim material throws into relief the emerging trend to interpret a new normal of crisis as a system of connected moral relations. Specific topics such as environmental personhood, rights of nature, and environmental justice emerge in new registers through Islamic humanities, as discussion over the course of this work has shown. Original, positive suggestions have arisen out of this, namely, how to advance beyond Anglocentrism and other misplaced totalizations; understanding “science” within humanistic frameworks in environmental studies; recognizing how the study of religion imaginatively and systematically expands humanistic substance and method, especially with respect to ethical claims; and, finally, how ethnographic approaches support seeing the unseen within the emerging field of environmental humanities, including recognizing real Muslim people at the start.

These chapters have shown that Islam, considered academically as religion, draws a discussion of environmentalism and thus the environment naturally into an ethical field. On this basis, the book forwards a stronger claim to environmental humanities: that the environment may itself be an inherently ethical category. This could come as a surprising proposition to

some, even within a field like religion and ecology.³ It would at least provoke others to be clear about parameters of what is being cast as the environment, both inside and outside scientific, normative and confessional contexts; and it also invites the recognition of committed stances, which coordinate the subject matter of interdisciplinary environmental studies (i.e., humanistic and other social studies along with biological, atmospheric, oceanic and earth sciences). If the environment is said to be determined by “relations,” as is increasingly a trend in environmental studies, and here it is posited to be so in more than one Muslim religious sense, these ethical and consequential relations will determine whatever phenomenon is said to take on “environmental” significance.

Depth achieved through various standard approaches to Islam in Islamic studies yields a systematicity to these formations in Muslim cases beyond the inherited nature/crisis dichotomy of the environment that was outlined in chapter 1. This emergent, patterned picture of Muslim environmentalisms has here been assembled as more than an epiphenomenon of shared sources like Qur'an and hadith on which diverse global traditions draw. Humanistic study of Islamic traditions, past and present, shows how Muslims themselves affirm that categories that are all called “science” (*‘ilm/‘ulum*), including Qur'anic study, law, and piety, have produced a highly flexible yet interrelated system, certainly under modernist expectations but also before, in medieval epistemology and categorizations of knowledge. This marks a range of intellectual coherence similar in order to that of general claims made in the field of comparative religious ethics.

Coherence has been a discovery previously of Muslim scholars conducting detailed and inductive study of Islam and environment. For example, discussing constructively what would be “An Islamic Theory of the Environment” (while summarizing a chapter of a book, *Islamic Futures*, by the prolific intellectual and theorist of the “postnormal future” Ziauddin Sardar), Izzi Dien writes: “Combine the concepts of *tawhid* [God's unity], *khilafah*, *halal*, and *haram* with the words for justice (*‘adl*) and moderation, temperance, balance, equilibrium, harmony, and the concept of *istihsan* (legal preference for the better) and *istislah* (public welfare [a variant of *maslahah*]) and one has the most sophisticated framework for an environmental ethics that one can possibly desire.”⁴

Izzi Dien concludes, “The suggested ingredients for an environmental theory are, in fact, no more than dissected parts of Islamic theology, law

and ethics, in outline form.”⁵ Such a coherent whole, however, may in fact end up being either greater or less than the sum of these parts, depending on what is being sought. It still remains an open question whether such parts, when assembled together, following the standard approach of Islamic studies in this book’s presentation, can be generalized out of disparate viewpoints to an ethical coherence. This would apply even just to the limited perspectives presented in this single study, not even making claims about a universal “Islam” or a broader humanism.

Yusuf Qaradawi’s text on the environment, law, and ethics is based on Qur’anic ideas, and any other Muslim religious environmentalist would accept at least two of its clear principles that undergird global expression coming from the Qur’an. Certainly these points would not be denied on religious grounds, however interpreted. First, it is not incorrect to say that the Qur’an teaches that humans have an ethical responsibility as creatures among others. This is a key teaching expressed in many Muslim environmental contexts. In addition, Qur’anic verses that recur, reflect, and refract throughout the text emphasize that humanity was charged by God to be moral “on earth” (*fi’l-ard*), and this is key especially to Qur’anicly derived interpretations such as Qaradawi’s. There are nearly five hundred verses to quote about the earth (*al-ard*) and its processes from the Qur’an, along with copious nature images like water. Far beyond “stewardship,” and from a Qur’anic stance, humans, a part of God’s creation, are responsible for the earth in a contingent and even ambivalent sense. The dominion (*mulk*) and the judgment of this care remains with Allah alone. The Qur’an offers many statements about these natural elements being “creatures” as well as “resources,” maintaining a state of being *muslim* by nature (*fitrah*) and active worship (*tasbih*, after Sarra Tlili). Along with this come multivariiegated principles, such as power, expressed through measured conservation, protection and even destruction. The Qur’an correlates these with condemnation of states of unjust oppression (*dhulm*) and moral and environmental degradation (*fasad*).

It is elementary to prove and nearly impossible to refute from such a Qur’anic perspective that humanity’s relation to the rest of God’s creation (including nonhuman and nonsentient forms) is determined theologically by fundamental relationships and responsibilities. In my ethnographic fieldwork with religious Muslims who are committed environmentalists, this Qur’anic truth is interpreted by activist K. H. Thonthawi and many

others to mean that the best way to reach religious goals, that is, to obtain the mercy of Allah (as on Judgment Day), is to show mercy to His creation. This represents social and political activism as much as personal action, as shown by the case studies discussed in this book and their characteristically Qur'anic focus on "standing for justice" as an expression of piety.

Second, a point that is unacknowledged in academic analysis on this subject, though nevertheless pervasive across Muslim systems, is another generalizable aspect of ethics in Muslim religious environmentalism. This is an acceptance of the role of apocalypticism in the Qur'an and in Islam. Eschatology represents about a fifth of the book's content, and so this becomes a central message of Muslim environmentalism, to the degree that it inspires engaged action through recognition of clear and inevitable consequences. When committed religious activists were interviewed for this project, to be called to account for relational consequences, whether in terms of specific measures or as a general orientation, was critical to the understanding of cause and effect extending this world to the next through the environmental transformations and landscapes to come.

Beyond propositions like these, which could not be rejected on Qur'anic grounds, now in constructive terms for the secular environmental humanities, this book offers three points with theoretical relevance: 1. moving beyond a "crisis" paradigm; 2. articulating notions of ultimate environmental justice sensibly, measuredly, and in both proximate and ultimate frames; and 3. ethical responses to environmental conditions enacted with respect to a universal and socially plural human situation.

First, patterns in Muslim environmentalisms across all the subfields represented in the chapters of this book model how to move beyond whatever ethical abdication inheres in a concept like the Anthropocene in environmental humanities, with cold scientific periodization on the one hand and emotional resorts of hope and alarm on the other. If Islam does not teach non-Muslims how to cope with the idea of the end of the world in the same way that it instructs believers, it does provide, through the Qur'an, an opportunity for all the text's readers to respond in their own way to the challenge to live with destruction as a constantly and potentially immanent, unknown reality. Analysis of religious perspectives documented here with respect to Muslim environmentalism also highlighted how Islam teaches life in *this* world to be moralized in relation to the inevitable, utter re-creation of a world to come. Even if—as like many a prominent Muslim

philosopher of the past—one were to view Islamic eschatological scenarios as figurative and not literal, such a humanist would participate nevertheless in reasoned conversation about ultimate ends *in the world* expressed in an idealized language of symbol, science, law, and ethics, just as Islamic intellectual tradition has done for over a millennium. The problem of unseen and unknown yet still certain processes and futures is now at the center of such a conversation in environmental humanities, whether or not the environment is rendered through Muslim religious lenses of empirical inquiry, resource management, aesthetics, and the landscapes that are real or imagined in this world or the next, as well as real-world change, challenge, and crisis.

A second summary implication for environmental humanities that comes out of diverse attitudes expressed in this book is the integration of notions of justice into humanistic principles. Feminist and Marxian critique, Kantian figurations of the sublime, or other manipulation of myth, science, and sentiment that would characterize environmental humanities do not exhaust ethical demands in this respect. Muslim environmentalisms evidence robust theory and practice of justice, both within and outside the Qur'anic text, as well as in areas like ethics and formal jurisprudence. The implications for the imagination of environmental justice within environmental humanities is that Muslim environmentalisms model how to connect struggles of and for the marginalized with clear consequential futures. This links the state of this world to that of the next in terms of relations, actions, and commitments that are all expected ultimately to be called to account across space, time, and generations. For Muslims, the Qur'anic injunctions to stand for justice in Islam (Q. 4:135, Q. 5:8) support environmentally committed communities as well as pluralistic solidarity on religious if not humanistic grounds. Islamic law is a system of flexible guidelines with variable interpretations, application, and enforcement, not rigid norms; nevertheless, they extend ethical dimensions to unseen futures in religious modes that are highly relevant to present and inclusive discussions in environmental humanities.

Third, and finally, Muslim environmentalisms articulate ethical response. A substantive contribution Islam makes to environmental humanities is to suggest that environmentalism be viewed as commitments to community and relations. Generalizing from the indisputable Qur'anic claim that the environment is a creation and thus a "creature"

(makhluk), cases throughout the book show not just *what* the environment is phenomenally to Muslims (as in notions like habitations or the biosphere) but also *who* it is in Islam. This casts Muslim environmentalisms in terms of commitment to the human and nonhuman relationships and responsibilities of this world with respect to the state of a world to come. This also mirrors trends in environmentalism over the last decade or more, such as those treating ontologies and related notions of environmental personhood. This is to recognize the constitution of humanity to be of the same ontological status as the rest of creation—that is, to respond to animals like birds, ants, or bees, and possibly nonsentient creatures (makhluk) like mountains, or the oceans and the layers of the atmosphere, as being Qur’anic “communities like you” (Q. 6:28).

Human ethical responsibility, as one creature among all, is spelled out vividly by the Qur’an as “mercy” in relation to Creator and created for the sake of the world to come, even after—and ever after—its destruction. In my work, I found this to be central to some Muslims’ lived and self-conscious environmentalism. Fundamental expressions like these extend the field of environmental response even beyond the human/nonhuman relations for which environmental humanities has developed tools to study unseen and indeterminate dimensions. Apophatic notions (such as the divine presence through transcendence and ineffability) direct readers of the Qur’an’s rhetoric to perceive the environment further and empirically with respect to manifest signs (*ayat*), which in the text are symbols and effects of the Real. This realization represents the same order of subtle understandings now called upon as a humanistic environmental approach. The Qur’an instructs its readers to apprehend the signs, whether “on the horizons or in yourselves” (Q. 41:53), in terms of a response to the ultimate test: the known consequences of thought and action in the phenomenal world as it is created, sustained, and destroyed.

In surah 99, appearing at the end of the Qur’an, and one of the shortest, humanity asks about the shaking earth, “What is going on [what’s wrong] with her?” (*wa qala al-insanu ma laha*). In this context, it is ultimately the earth (*al-ard*) herself who “tells her story” (*tuhaddithu akhbaraha*), revealed in the text to be enlivened (*awha laha*) on judgment as a creature among all the others, in order to testify about the “burdens” (*athqalaha*) that were heaped upon her. In Islamic religious environmentalisms, this earth who speaks for herself did not need a mission to “save” her any more than she

deserved exploitation. The Qur'an just instructs humanity to "tread softly" or "walk with humbleness" on her, the earth (Q. 25:63).

Humanistic appreciation of this viewpoint provides a clearer articulation of environmentalism as it relates to the unseen and unknown as well as in relation to a certain future reckoning with other creatures who may or may not be presently perceived. In 27 Al-Naml 18–19, just before the Prophet Solomon converses with the Hoopoe, he responds to the voice of a tiny ant. The insect has spoken up, alarmed and afraid that she will go unseen and be crushed underfoot, and in this way she got the attention of the Prophet Sulaiman himself:

18. Until, when they came upon the valley of the ants, an ant said, "O ants, enter your dwellings that you not be crushed by Solomon and his soldiers while they perceive not."

19. So Sulaiman [Solomon] smiled, amused at her speech, and said, "My Lord, enable me to be grateful for Your favor which You have bestowed upon me and upon my parents and to do righteousness of which You approve. And admit me by Your mercy into [the ranks of] Your righteous servants."

And so, considering the ant mercifully, the wise Prophet Solomon himself prays for mercy.

Notes

1. History of Religions, Islam, and Environmental Humanities

1. Deborah Bird Rose, Thom van Dooren, Matthew Chrulew, Stuart Cooke, Matthew Kearnes, and Emily Gorman, "Thinking Through the Environment, Unsettling the Humanities," *Environmental Humanities* 1, no. 1 (November 2010): 1–5.

2. For example, Dipesh Chakrabarty, "Postcolonial Studies and the Challenge of Climate Change," *New Literary History* 43, no. 1 (Winter 2012): 1–18; and "The Climate of History: Four Theses," *Critical Inquiry* 35, no. 2 (Winter 2009): 197–222. See the discussion edited by Robert Emmett and Thomas Lekan, "Whose Anthropocene? Revisiting Dipesh Chakrabarty's 'Four Theses,'" in *RCC Perspectives: Transformations in Environment and Society*, no. 2 (2016). Relevant work on postcolonial inquiry is Dipesh Chakrabarty, *Provincializing Europe: Postcolonial Thought and Historical Difference* (Princeton: Princeton University Press, 2000).

3. Déborah Danowski and Eduardo Viveiros de Castro, *The Ends of the World* (New York: Polity, 2016); Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham, NC: Duke University Press, 2016); Timothy Morton, *The Ecological Thought* (Cambridge, MA: Harvard University Press, 2010); Anna Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton: Princeton University Press, 2016); and, Slavoj Žižek, *Living in the End Times* (London: Verso, 2011).

4. Naomi Klein, *This Changes Everything: Capitalism vs. The Climate* (New York: Simon and Schuster, 2015); and Naomi Oreskes and Erik M. Conway, *The Collapse of Civilization: A View from the Future* (New York: Columbia University Press, 2014).

5. "Gaia" is based in the field of astronomy dating back to the 1960s with James Lovelock's original Gaia hypothesis. Bruno Latour, "Waiting for Gaia: Composing the Common World Through Arts and Politics," lecture at the French Institute, London (November 2011); and Bruno Latour, *Facing Gaia: Eight Lectures on the New Climatic Regime* (Cambridge: Polity, 2017); James Lovelock, *Ages of Gaia* (New York:

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Oxford University Press, 1995 [1988]); and Rosemary R. Ruether, *Gaia and God: An Ecofeminist Theology of Earth Healing* (New York: HarperOne, 1994).

6. Anna Tsing, Heather Swanson, Elaine Gan, and Nils Bubandt, eds., *Arts of Living on a Damaged Planet: Ghosts of the Anthropocene* (Minneapolis: University of Minnesota Press, 2017).

7. Edward Said writes, “An excellent recent instance [of scholarly work on Islam] is the anthropology of Clifford Geertz, whose interest in Islam is discrete and concrete enough to be animated by the specific societies and problems he studies and not by the rituals, preconceptions, and doctrines of Orientalism.” Edward Said, *Orientalism* (New York: Vintage, 1978), 326.

8. For a criticism of Clifford Geertz on Muslim Indonesia in anthropology, see Mark Woodward, *Islam in Java: Islam in Java: Normative Piety and Mysticism in the Sultanate of Yogyakarta* (Ann Arbor: Association for Asian Studies, 1989); more general discussion of Geertz along these lines by an anthropologist is Daniel Varisco, *Islam Obscured: The Rhetoric of Anthropological Representation* (New York: Palgrave Macmillan, 2005).

9. Carol Delaney, *The Seed and the Soil: Gender and Cosmology in Turkish Muslim Society* (Berkeley: University of California Press, 1991).

10. Philippe Descola, *The Ecology of Others* (Chicago: Prickly Paradigm, 2013); Anand Teja, *Jinnealogy: Time, Islam, and Ecological Thought in the Medieval Ruins of Delhi* (Stanford: Stanford University Press, 2018); and Naveeda Khan, “The Death of Nature in the Era of Global Warming,” in *Wording the World: Veena Das and Scenes of Inheritance*, ed. Roma Chatterji (New York: Fordham University Press, 2014), 288–99; and “Dogs and Humans and What Earth Can Be: Filaments of Muslim Ecological Thought,” *HAU: Journal of Ethnographic Theory* 4, no. 3 (Winter 2014): 245–64.

11. More in-depth description and analysis of this material is in the author’s “Mt. Merapi, Prayer and Disaster,” one of four essays in *Reverberations*, blog of the Social Science Research Council, titled “Landscapes of Prayer” (2015), <http://forums.ssrc.org/ndsp/2015/05/22/mount-merapi-prayer-and-disaster/>.

12. Environmental historian William Cronon and geographer Yi-Fu Tuan have developed this, respectively, at the University of Wisconsin; geographers also draw on the work of geographer Tim Cresswell, *In Place, Out of Place: Geography, Ideology, Transgression* (Minneapolis: University of Minnesota Press, 1996). Anthropologists have long used the idea, such as Basso’s *Wisdom Sits in Places*. Apparently drawing heavily on Arjun Appadurai in “Disjuncture and Difference in the Global Cultural Economy,” *Theory, Culture, and Society* 7, nos. 2–3 (June 1990): 295–310, Thomas Tweed offers a theory of place making as an entire theory of religion based on Christian examples in *Crossing and Dwelling: A Theory of Religion* (Cambridge, MA: Harvard University Press, 2008).

13. Clifford Geertz, “Local Knowledge: Fact and Law in Comparative Perspective,” in *Local Knowledge: Further Essays in Interpretive Anthropology* (New York: Basic Books, 1983), 167–234, which is a study of norms of *haqq* and *adat* along with Hindu *dharma*.

14. Nicola Tannenbaum, *Who Can Compete Against the World?: Power-Protection and Buddhism in Shan Worldview* (Ann Arbor: Association for Asian Studies, 1996). See also Clifford Geertz on global and local religious “styles” of global Islam in his

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masterpiece of comparison, *Islam Observed: Religious Development in Morocco and Indonesia* (New Haven: Yale University Press, 1968).

15. Local Indonesian responses like this in relation to “great tradition” Islam is a point made by Zain Bagir and Najiyah Martiam in their general survey article “Islam: Norms and Practices,” in *Routledge Handbook of Religion and Ecology*, ed. Willis J. Jenkins, Mary Evelyn Tucker, and John Grim (New York: Routledge, 2016), 79–87.

16. Clifford Geertz, “Religion as a Cultural System,” In *The Interpretation of Cultures* (New York: Basic Books, 1973), 87–125.

17. Clifford Geertz, *The Religion of Java* (Chicago: University of Chicago Press, 1960).

18. Pak Asih describes the *labuhan* ritual and its changes in the ritual in a subtitled videorecordings titled “Mt. Merapi: Tradition and Disaster Response,” <https://vimeo.com/album/2981130>, within the author’s collection of online videos, Green Islam in Indonesia, referenced throughout this book.

19. Carolyn Merchant, *Autonomous Nature: Problems of Prediction and Control from Ancient Times to the Scientific Revolution* (New York: Routledge, 2015).

20. For example, Nuki Amientien, leader of the religious madrasa Pondok Pesantren “Pabelan,” discusses her efforts to house and provide relief for members of the surrounding community in the midst of a water crisis brought on by the eruption in the online video “Environmental Programs at Pesantren Pabelan: From Organic Farming to Disaster Relief” (<https://vimeo.com/48155550>), in the online collection Green Islam in Indonesia.

21. This is a Malay/Indonesian variant of the Arabic word *salama* (related also to the noun *islam*, meaning “peace” or “safety”). A common way to say good-bye in Arabic is *ma’ salama* (“go in peace”/“stay safe”), for example. *Selamatan* is also the name for a ritual meal on Java that brings together the community for a celebration of prosperity and well-being. K. H. Masrur Ahmad of Pondok Pesantren “Al-Qodir” (Cangkring, Jogjakarta, Java) relates the story in his own words, using the expression in context, in an online video from the Green Islam in Indonesia collection titled “Disaster Response and Religious Community at Mt. Merapi (2010),” <https://vimeo.com/album/2981130/video/102670717>.

22. Farid Esack, *Qur’an, Liberation, and Pluralism: An Islamic Perspective of Interreligious Solidarity Against Oppression* (Oxford: Oneworld, 1996), and Amina Wadud, *Qur’an and Woman: Rereading the Sacred Text from a Woman’s Perspective* (New York: Oxford University Press, 1999).

23. Kecia Ali treats the issue of authenticity, “westernization,” and contemporary environmentalist agendas in “Muslims and Meat-Eating,” *Journal of Religious Ethics* 43, no. 3 (June 2015): 268–88.

24. See, for example, Todd H. Green, *Presumed Guilty: Why We Should Not Ask Muslims to Condemn Terrorism* (Minneapolis: Fortress, 2018).

25. Discussion and perspectives on this topic in postcolonial humanities is in the volume ed. Rita Felski and Susan Stanford Friedman, *Comparison: Theories, Approaches, Uses* (Baltimore: Johns Hopkins University Press, 2013).

26. Kay Milton, “Introduction: Environmentalism and Anthropology,” in *Environmentalism: The View from Anthropology* (New York: Routledge, 1993), 1. See also Kay

Milton's expansion of ideas like these across fields in *Environmentalism and Cultural Theory: The Role of Anthropology in Environmental Discourse* (New York: Routledge, 1996).

27. Milton, 2.

28. Richard Foltz, "Is There an Islamic Environmentalism?," *Environmental Ethics* 22, no. 1 (Spring 2000): 63, drawing on the article by Mawil Izzi Din (ʿIzz Al-Din), "Islam and the Environment: Theory and Practice," *Journal of Beliefs and Values* 18, no. 1 (April 1997): 47–58. Foltz documents Muslim environmental initiatives in Iran in numerous publications, including reflections on "environmental crisis" as "a kind of slow violence" in Richard Foltz, "The Environmental Crisis and Global Violence: A Matter of Misplaced Values," *Islamic Perspective*, London Academy of Iranian Studies no. 3 (2010), 131–40; see also Robert Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge, MA: Harvard University Press, 2013). In another work Foltz edited, *Environmentalism in the Muslim World* (New York: Nova Science, 2005), *environment* is defined in terms of crisis or problems (Foltz's introduction is titled, "The Environmental Crisis in the Muslim World"); contributions describe contemporary initiatives identified as environmentalist in modern nation-states.

29. For example, in "Waiting for Gaia," Bruno Latour concludes with a question: "What does it mean to be morally responsible in the time of the anthropocene, when the Earth is shaped by us, by our lack of morality—except there is no acceptably recognizable 'we' to be burdened by the weight of such a responsibility—and that even the loop connecting our collective action to its consequence is thrown into doubt?" (4).

30. Lisa Sideris looks at the cases of a contemporary phenomenon of evolutionary science as "religion" in light of environmental ethics in an online essay "Genesis 2.0," *Cosmologics* (Harvard University Divinity School, 2016 [online]), and in detail in her book *Consecrating Science: Wonder, Knowledge, and the Natural World* (Berkeley: University of California Press, 2017). Her book-length study considering the limits of science (natural selection) for environmental ethics is *Environmental Ethics, Ecological Theory, and Natural Selection* (New York: Columbia University Press, 2003).

31. Latour, "Waiting for Gaia."

32. See the discussion in J. Baird Callicott, *In Defense of Land Ethic: Essays in Environmental Philosophy* (Albany: State University of New York Press, 1989); and *Beyond the Land Ethic: More Essays in Environmental Philosophy* (Albany: State University of New York Press, 1999). Aldo Leopold's classic is *A Sand County Almanac (and Sketches Here and There)* (New York: Oxford University Press, 1968 [1949]); and *River of the Mother of God and Other Essays* by Aldo Leopold, ed. Susan L. Flader and J. Baird Callicott (Madison: University of Wisconsin Press, 1991). For an introduction to Leopold, see Curt Meine, *Aldo Leopold: His Life and Work* (Madison: University of Wisconsin Press, 2010 [1988]); and Susan L. Flader, *Thinking Like a Mountain: Aldo Leopold and the Evolution of an Ecological Attitude Toward Deer, Wolves, and Forests* (Madison: University of Wisconsin Press, 1994).

33. For example, Neil Evernden, *The Social Construction of Nature* (Baltimore: Johns Hopkins University Press, 1992); and Timothy Morton *Environment Without Nature: Rethinking Environmental Aesthetics* (Cambridge, MA: Harvard University Press, 2007).

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34. Andrea Wulf, *The Invention of Nature: Alexander von Humboldt's New World* (New York: Knopf, 2016).

35. J. R. McNeill, *An Environmental History of the Twentieth-Century World; Something New Under the Sun* (New York: Norton, 2000), 336. McNeill's lack of attention to the mechanisms of colonialism is apparent when he discusses what the Industrial Revolution meant for "us," concluding, "Most of the explosive growth of modern times derives from human ingenuity" (not resource extraction, p. 17), elsewhere attributing it to "luck."

36. Catherine Albanese, *Nature Religion in America: From the Algonkian Indians to the New Age* (Chicago: University of Chicago Press, 1991); Bron Taylor follows Albanese with a loose collection of case studies on cinema, recreation, and activism to show the persistence of "nature religion" in America in *Dark Green Religion: Nature, Spirituality, and the Planetary Future* (Berkeley: University of California Press, 2010). Carolyn Merchant, *The Death of Nature: Women, Ecology, and the Scientific Revolution* (New York: HarperOne, 1990) is a seminal work of feminist critique.

37. Mary E. Tucker and John Grim, whose work is strongly influenced by the work of Thomas Berry and the Roman Catholic theologian Pierre Teilhard de Chardin, produced the film *Journey of the Universe* (2011). See also related material like Brian Swimme and Thomas Berry, *The Universe Story* (New York: HarperCollins, 1992); Brian Swimme and Mary Evelyn Tucker, *Journey of the Universe* (New Haven: Yale University Press, 2014); and Thomas Berry and Mary Evelyn Tucker, *The Sacred Universe: Earth, Spirituality, and Religion in the Twenty-First Century* (New York: Columbia University Press, 2009).

38. See Evan Berry, *Devoted to Nature: The Religious Roots of American Environmentalism* (Berkeley: University of California Press, 2015); Thomas R. Dunlap, *Faith in Nature: Environmentalism as Religious Quest* (Seattle: University of Washington Press, 2004); and Mark Stoll, *Inherit the Holy Mountain: Religion and the Rise of American Environmentalism* (New York: Oxford University Press, 2015).

39. Wulf, *The Invention of Nature*.

40. Rudolf Otto's *The Idea of the Holy* (New York: Oxford University Press, 1958 [1923]) is the *locus classicus* of such a notion in religious studies. In his landmark essay "The Trouble with Wilderness: Or, Getting Back to the Wrong Nature," *Environmental History* 1, no. 1 (January 1996): 7–28, environmental historian William Cronon documents shifts in American environmentalism with respect to a notion like the sacred. A foundational work on "wilderness" in environmental studies is James Nash, *Wilderness and the American Mind* (New Haven: Yale University Press, 1967); see also Max Oelschlaeger, *The Idea of Wilderness: From Prehistory to the Age of Ecology* (New Haven: Yale University Press, 1993).

41. Lisa Sideris, "Fact and Fiction, Fear and Wonder: The Legacy of Rachel Carson," in *Soundings: An Interdisciplinary Journal* 91, nos. 3–4 (2009): 335–69, and "The Secular and Religious Sources of Rachel Carson's Sense of Wonder," in *Rachel Carson: Legacy and Challenge*, ed. Lisa H. Sideris and Kathleen Dean Moore (Albany: State University of New York Press, 2008), 232–50.

42. Rachel Carson, *Silent Spring* (Boston: Houghton Mifflin, 2002 [1962]), 1–3.

43. The original essay by Lynn White Jr. is "The Historical Roots of Our Ecologic Crisis," *Science* 155 (March 1967): 1203–7. Ahmed Afzaal discusses White and Islam

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in light of Muhammad Iqbal in “Disenchantment and the Environmental Crisis: Lynn White Jr., Max Weber, and Muhammad Iqbal,” *Worldviews* 16 (January 2012): 239–62. Bron Taylor also recently revisits Lynn White in “The Greening of Religion Hypothesis (Part One): From Lynn White, Jr. and Claims That Religions Can Promote Environmentally Destructive Attitudes and Behaviors to Assertions They Are Becoming Environmentally Friendly,” *Journal for the Study of Religion, Nature, and Culture* 10, no. 3 (2016): 264–304. From the perspective of religious ethics, see the discussion about White, pluralism, and “moral community” in Willis Jenkins, “After Lynn White: Religious Ethics and Environmental Problems,” *Journal of Religious Ethics* 37, no. 2 (June 2009): 283–309. See also retrospective reflections in Elspeth Whitney, “Lynn White Jr.’s ‘The Historical Roots of Our Ecologic Crisis’ After Fifty Years,” *History Compass* 13, no. 8 (August 2015): 396–410.

44. The historic papal encyclical on environment climate change released by Pope Francis of the Roman Catholic Church in 2015, *Laudato Si’* (“Our Common Home”), includes discussion of Saint Francis and bears the name of the pontiff who took Francis’s name. *Laudato Si’: Our Common Home*, http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html. The interfaith Assisi Declarations also recast the legacy of Saint Francis.

45. Bruno Latour, *We Have Never Been Modern* (Cambridge, MA: Harvard University Press, 1993), 1–3.

46. For example, Jeremy Davies, *The Birth of the Anthropocene* (Berkeley: University of California Press, 2016).

47. Elizabeth Kolbert, *The Sixth Extinction: An Unnatural History* (New York: Picador, 2015), 266–67.

48. For example, there is no entry for apocalypticism or eschatology in the two volumes of *The Encyclopedia of Religion and Nature*, ed. Bron Taylor and Jeffrey Kaplan (New York: Continuum, 2005). In a reference to Muslim apocalypticism in religion and ecology literature, it is otherwise categorized on Weberian grounds as “other-worldly” in J. Baird Callicott, *Earth’s Insights: A Multicultural Survey of Ecological Ethics from the Mediterranean Basin to the Australian Outback* (Berkeley: University of California Press, 2004), 32–33, which offers comparisons to Judaism and Christianity in place of reading Qur’an, even as it references “Raman” more than once (i.e., Fazlur Rahman).

49. For example, Alexander Bevilacqua, *Republic of Arabic Letters: Islam and the European Enlightenment* (Cambridge, MA: Harvard University Press, 2018); and Richard Bulliet, *The Case for Islamo-Christian Civilization* (New York: Columbia University Press, 2004).

50. Tomoko Masuzawa, *The Invention of World Religions: Or, How European Universalism Was Preserved in a Language of Pluralism* (Chicago: University of Chicago Press, 2005); see more recent work focusing on Africa, David Chidester, *Empire of Religion: Imperialism and Comparative Religion* (Chicago: University of Chicago Press, 2014).

51. Carolyn Finney, *Black Faces, White Spaces: Reimagining the Relationship of African-Americans to the Great Outdoors* (Chapel Hill: University of North Carolina Press, 2014).

52. Ramachandra Guha, *How Much Should a Person Consume?: Environmentalism in the USA and India* (Berkeley: University of California Press, 2006); *Global Environmental*

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History (New York: Longman, 2000); and *Varieties of Environmentalism: Essays North and South* (London: Earthscan, 1997).

53. Richard C. Foltz, Frederick M. Denny, and Azizan Baharuddin, eds., *Islam and Ecology: A Bestowed Trust* (Cambridge, MA: Harvard University Press, 2003). A few significant academic works on Islam and the environment in English cited in this book's bibliography. As Richard Foltz did previously, this book draws on perspectives of Mawil Izzi Dien, as in *The Environmental Dimensions of Islam* (Cambridge: Lutterworth, 2000), especially for law.

54. Cemil Aydin, *The Idea of the Muslim World: A Global Intellectual History* (Cambridge, MA: Harvard University Press, 2017).

55. See, for example, a collection of short videos, Green Islam in Indonesia, which is referenced specifically throughout this book: www.vimeo.com/hijau.

56. From Marshall Hodgson's *The Venture of Islam*, 3 vols. (Chicago: University of Chicago Press, 1977); to Lenn E. Goodman's *Islamic Humanism* (New York: Oxford University Press, 2005); to the recent book by Shahab Ahmed, *What is Islam?: The Importance of Being Islamic* (Princeton: Princeton University Press, 2015), scholars have sought historically grounded but nonessentialist approaches to global Islam that do not fragment Muslim experience. These perspectives tend to emphasize the cosmopolitan and shared social, intellectual, and religious interconnectedness of "tradition" (as in the sense of Alasdair McIntyre treating Christian systems of ethics), through Sufism, law, Qur'an study, and so forth.

57. Said, *Orientalism*, 300–1.

58. See the author's article, "Beyond 'Hope': Religion and Environmental Sentiment in the U.S. and Indonesia" in *How Do We Study Religion and Emotion?*, ed. John Corrigan (Durham, NC: Duke University Press, 2017), 175–99; and Slavoj Žižek, *The Courage of Hopelessness: A Year of Acting Dangerously* (New York: Melville House, 2017).

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1. Relevant to this chapter, see the critique of religious environmentalism and global development in Hindu India by Emma Tomalin, *Biodivinity and Biodiversity: The Limits to Religious Environmentalism* (New York: Routledge, 2016), which takes a social-scientific approach, as well as Tomalin's earlier article, "Bio-Divinity and Biodiversity: Perspectives on Religion and Environmental Conservation in India," *Numen* 51, no. 3 (July 2004): 265–95. The main point of the critique of NGOs found in this chapter (i.e., on essentialism, world-religions pluralism, and normative instrumentalism with respect to deploying Islam and "religion and ecology" to promote mainstream environmentalist goals like sustainability and conservation) appeared in Anna M. Gade, "Roundtable on Islam and Normativity: A Response," *Journal of the American Academy of Religion*, 84, no. 1 (March 2016): 113–26.

2. A widely circulated illustration of this is M. Palmer, and V. Finlay, ed., *Faith in Conservation: New Approaches to Religion and the Environment* (Bath: Alliance of Religions and Conservation, 2013), which first appeared as a publication of the World Bank in its *Directions in Development Series* (Washington, DC, 2003).

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3. For example, N. Dudley, L. Higgins-Zogib, and S. Mansourian, *Beyond Belief: Linking Faiths and Protected Areas to Support Biodiversity Conservation* (Switzerland WWF International, with Equilibrium and Alliance of Religions and Conservation, 2010).

4. James D. Wolfensohn, "Foreword," in Palmer, and Finlay, *Faith in Conservation*.

5. Text of the document is available at <http://www.arcworld.org/downloads/THE%20ASSISI%20DECLARATIONS.pdf>. *Faith in Conservation* also includes this material, and adds to this more to represent more faith traditions.

6. Abu Bakr Ahmad Baqadir, Ahmad Abdel Latif, Tawfik al-Shirazi al-Sabagh, Mohamed al-Sayed al-Glenid, and Mawil Y. Izzi Dien, *Basic Paper on the Islamic Principles for the Conservation of the Natural Environment/Étude de base sur les principes islamiques relatifs à la conservation de l'environnement naturel* (Gland: International Union for Conservation of Nature and Natural Resources, 1983); see also Baqadir, *Environmental Protection in Islam* (Gland: IUCN—the World Conservation Union, 1994).

7. "World Religions" in religion and ecology are also discussed with respect to Islam in Eleanor Finnegan's article on fieldwork with Muslim farms in the U.S., "What Traditions Are Represented in Religion and Ecology?: A Perspective From an American Scholar of Islam," in *Inherited Land: The Changing Grounds of Religions and Ecology*, ed. Whitney Bauman, Richard R. Bohannon, and Kevin J. O'Brien (Eugene, OR: Wipf and Stock, 2011), 64–79; Bron Taylor treats the subject in a brief encyclopedia entry, "Critical Perspectives on 'Religions of the World and Ecology,'" in *The Encyclopedia of Religion and Nature*, 2:1375–76.

8. Susan Darlington, *The Ordination of a Tree: The Thai Buddhist Environmental Movement* (Albany: State University of New York Press, 2012), and her earlier article, "The Ordination of a Tree: The Buddhist Ecology Movement in Thailand," *Ethnology* 37, no. 1 (January 1998): 1–15. Often taken to be a nativist Thai Buddhist religious response to deforestation supporting conservation efforts in Thailand and Cambodia, the program was originally initiated in mainland Southeast Asia by the WWF.

9. Eliza Kent, *Sacred Groves and Local Gods: Religion and Environmentalism in South India* (New York: Oxford University Press, 2013).

10. These same questions are analyzed in more depth in Anna M. Gade, "Indonesian Islamic Law of the Environment: *Fatwa* and *Dakwah*," *Worldviews: Global Religions, Culture and Ecology* 19, no. 2 (January 2015): 161–83.

11. For example, David L. Barnhill and Roger S. Gottlieb's edited volume, *Deep Ecology and World Religions: New Essays on Sacred Ground* (Albany: State University of New York Press, 2001); and Arne Kalland, "The Religious Environmentalist Paradigm," in *Encyclopedia of Religion and Nature*, ed. Bron Taylor and Jeffrey Kaplan (New York: Continuum, 2005), 2:1367–71.

12. The Earth Charter is available to read online at http://www.unesco.org/education/tlsf/mods/theme_a/img/02_earthcharter.pdf. Over the past decades, reflections on the significance, impact, and legacy of the Earth Charter have been numerous in the fields of environmental humanities and especially Christian and post-Christian religious ethics. In 1993 the Parliament of World Religions also announced a Global Ethic.

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13. The statement is published online at <http://islamicclimatedeclaration.org/islamic-declaration-on-global-climate-change/>.

14. The document on the global Green Hajj is available at http://www.arcworld.org/downloads/Green_Guide_for_Hajj.pdf, on the Alliance of Religion and Conservation website.

There are many such initiatives for greening Ramadan in the English-speaking Muslim world, including Australia and New Zealand, South Africa, and elsewhere. The example discussed here, from the U.S., is one sponsored by the Islamic Society of North America for a green Ramadan: <http://www.isna.net/greening-ramadan-campaign.html> (2015).

15. On sustainability and its critique with respect to global equality, see discussion in the volume ed. Julian Agyeman, Jonathan Bullard, and Bob Evans, *Just Sustainability: Development in an Unequal World* (Cambridge, MA: MIT Press, 2003); and also Agyeman's *Sustainable Communities and the Challenge of Environmental Justice* (New York: New York University Press, 2003).

16. <http://www.arcworld.org/>.

17. <http://www.arcworld.org/projects.asp?projectID=647>.

18. In a personal communication with an in-country program officer who was tasked to begin the "Islamic farming" program in-country, I learned that an issue with this (and with other NGO-sponsored initiatives) was to develop reliable and verifiable instruments to assess and measures of effectiveness or impact of religious values.

19. *Islamic Farming: A Toolkit for Conservation Agriculture* is available at <http://www.arcworld.org/downloads/Islamic-Farming-Toolkit.pdf>. The primary author is given as Dr. Husna Ahmad.

20. The prophetic hadith of "five before five" illustrates the theme of pondering last things. According to the narration on the authority of the companion, Ibn Abbas, the Prophet Muhammad instructed his followers to "take benefit of five things before five things": "your youth before your old age, your health before your sickness, your wealth before your poverty, your free time before you are busy, and your life before your death." In Indonesia, another popular list of five things, called medicine for the heart (Ind./Jav. *Tombo Ati*), is sometimes attributed to the famous physician and philosopher Ibn Sina (Avicenna), sometimes the Javanese saint Sunan Bonang, and sometimes the Prophet Muhammad. These consist of rising at night to pray (*tahajjud*), reading the Qur'an, obligatory and supererogatory fasting, gathering with pious people, and *dhikr*, active and ritual remembrance of Allah.

21. The following material can be found on Internet blogs such as, from 2007 and 2012 respectively (as accessed in 2016): <https://truelife200vi.wordpress.com/2007/11/27/allahs-promises-of-rizq/> and <http://deenbeforedunya.blogspot.com/2012/08/rizq.html>. A website of the *shaykh* (with whom these ideas possibly originated, attribution notwithstanding) appears to be <http://www.islahebatin.org/Default.aspx>.

22. "Farming in God's Way," 6. This document is available online as <http://www.farming-gods-way.org/home.htm>, with description on ARC's website at <http://www.arcworld.org/projects.asp?projectID=633> (accessed 2016).

23. "Farming in God's Way."

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24. Further discussion is in Anna M. Gade, "Tradition and Sentiment in Indonesian Environmental Islam," *Worldviews: Global Religions, Culture, and Ecology* 16, no. 3 (2012): 263–85. A close study of Pondok Pesantren "Al-Ittifaq" in Ciwidey, West Java, is Faiz Manshur, *Entrepreneur Organik: Rahasia Sukses K. H. Fuad Affandi Bersama Pesantren dan Tarekat 'Sayuriah'-nya* (Bandung: NUANSA, 2009).

25. Some of the material in this section and the one to follow appears in the author's unpublished article, "Cham Muslims of Cambodia: Religion and Development"; this was based on a fieldwork project in 2003–2005 on a religious and social "revitalization and recovery" of Cham Muslim communities in areas of Cambodia.

Until now, development studies has generally been missing from discussions of religion and ecology. For example, there are no entries for development, NGOs, or sustainability in the two volumes of *The Encyclopedia of Religion and Nature* edited by Bron Taylor in 2005.

26. The text is as follows, as prepared by the ARC, the United Nations Development Program along with Earth-Mates Dialogue Center in 2008: <http://www.arcworld.org/downloads/Muslim-7YP.pdf>.

27. Classic statements include those by Claude Alvarez, *Science, Development, and Violence: The Revolt Against Modernity* (Delhi: Oxford University Press, 1994); Antonio Escobar, *Encountering Development: The Making and Unmaking of the Third World* (Princeton: Princeton University Press, 1995); James Ferguson, *The Anti-Politics Machine: "Development," Depoliticization, and Bureaucratic Power in Lesotho* (Cambridge: Cambridge University Press, 1990); Ivan Illich, "Development as Planned Poverty," in *The Post-Development Reader*, ed. Majid Rahnema and Victoria Bawtree (Atlantic Highlands, NJ: Zed, 1997), 94–102; Joke Schrijvers, *The Violence of "Development"* (Amsterdam: International, 1993); and Aram Ziai, "The Ambivalence of Post-Development: Between Reactionary Populism and Radical Democracy," *Third World Quarterly* 25, no. 6 (September 2004): 1045–60. Relatively early critique of religion and development first appeared about the time of Tamsin Bradley's article, "Does Compassion Bring Results? A Critical Perspective on Faith and Development," *Culture and Religion* 6 (November 2005): 337–51.

28. See <http://www.arcworld.org/projects.asp?projectID=662>. The website of the Summit of Conscience is <https://www.whydoicare.org/en/summit-of-the-consciences-for-the-climate>.

29. Some ground-breaking work in this area includes the influential volume by Ananta Kumar Giri, Anton van Harskamp, and Oscar Salemink, eds., *The Development of Religion, the Religion of Development* (Delft: Eburon, 2004); Jeffrey Haynes, *Religion and Development: Conflict or Cooperation?* (New York: Palgrave Macmillan, 2007), which is written from the perspective of politics; Gerrie Ter Haar and Stephen Ellis, "The Role of Religion in Development: Towards a New Relationship Between the European Union and Africa," *European Journal of Development Research* 18 (September 2006): 351–67; and, Kurt Alan Ver Beek, "Spirituality: A Development Taboo," *Development Practice* 10, no. 1 (February 2000): 31–43. Religious networks have also been a focus of research on the anthropology of development, including a body of work on Christian organizations, especially in Africa, represented by, for example, foundational studies by Erica Bornstein, *Spirit of Development: Protestant NGOs, Morality, and Economics in Zimbabwe* (Stanford: Stanford University Press, 2005).

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30. See, for example, Bryan S. Turner, *Weber and Islam* (London: Routledge, 1974).

31. Geertz is still read in the field of economic development today. In significant respects, it was the early work of Clifford Geertz on economic change on Java, including cooperatives, that paved the way for an understanding of Islam and development, such as "Economic Development in Modjokuto," in *Business and Society: A Reader in the History, Sociology, and Ethics of Business*, ed. Barry Castro (New York: Oxford University Press, 1996), 54–59; *The Rotating Credit Association: An Instrument for Development* (Cambridge, MA: Center for International Studies, MIT, 1956); and *The Social Context of Economic Change: An Indonesian Case Study* (Cambridge, MA: Center for International Studies, MIT, 1956).

32. Material on Islam and development includes Matthew Clarke and David Tittensor, *Islam and Development: Exploring the Invisible Aid Economy* (London: Ashgate, 2014). Foundational works in the field, which focuses mostly in the Middle East, are Maha M. Abdelrahman, *Civil Society Exposed: The Politics of NGOs in Egypt* (London: I. B. Tauris, 2005); Mohammed. Ansari, "Islamic Perspectives on Sustainable Development," *American Journal of Islamic Social Sciences* 11, no. 3 (Fall 1994): 394–402; Asef Bayat, "Activism and Social Development in the Middle East," *International Journal of Middle East Studies* 34, no. 1 (February 2002): 1–28; Marleen Renders, "An Ambiguous Adventure: Muslim Organisations and the Discourse of Development in Senegal," *Journal of Religion in Africa* 32, no. 1 (February 2002): 61–82; and Quintan Wiktorowicz and Suha Taji Farouki, "Islamic NGOs and Muslim Politics: A Case from Jordan," *Third World Quarterly* 21, no. 4 (2000): 685–99. From the perspective of environment and development, see Safei El-Deen Hamed, "Capacity Building for Sustainable Development: The Dilemma of Islamization of Environmental Institutions," in *Islam and Ecology: A Bestowed Trust*, ed. Richard Foltz, Frederick M. Denny, and Azizan Baharuddin (Cambridge, MA: Harvard University Press, 2003), 403–22. Islamic charities, and Islam and charitable giving overall, is one of the key areas of this field, as evidenced by Jonathan Benthall and Jérôme Bellion-Jourdan, *The Charitable Crescent: Politics of Aid in the Muslim World* (London: I. B. Tauris, 2003); and, more recently, Jonathan Benthall, *Islamic Charities and Islamic Humanism in Troubled Times* (Manchester: University of Manchester Press, 2016). For Indonesian perspectives on this, see H. Latief, "Islamic Charities and Social Activism: Welfare, *Dakwah*, and Politics in Indonesia," Ph.D. diss. (Utrecht: University of Utrecht, 2012); and Amelia Fauzia, *Faith and the State: A History of Islamic Philanthropy in Indonesia* (Leiden: Brill 2013).

33. Janine Clark, *Islam, Charity, and Activism: Middle-Class Networks and Social Welfare in Egypt, Jordan, and Yemen* (Bloomington: Indiana University Press, 2003); Quintan Wiktorowicz, *Islamic Activism: A Social Movement Theory Approach* (Bloomington: Indiana University Press, 2003); and Quintan Wiktorowicz and Suha Taji Farouki, "Islamic NGOs and Muslim Politics: A Case from Jordan," *Third World Quarterly* 21, no. 4 (August 2000): 685–99.

34. This has been represented by regional studies like Sadia Ahmed, "Islam and Development: Opportunities and Constraints for Somali Women" *Gender and Development* 7 (March 1999): 69–72, and Brenda Bartelink and Marjo Buitelaar, "The Challenges of Incorporating Muslim Women's Views into Development Policy: Analysis of a Dutch Action Research Project in Yemen," *Gender and Development* 14 (November 2006): 351–62.

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35. A general overview may be found in a textbook by Emma Tomalin, *Religions and Development* (London: Routledge, 2013).

36. This was first studied in influential work like that published by Terje Tvedt, *Angels of Mercy or Development Diplomats?: NGOs and Foreign Aid* (Trenton, NJ: Africa World, 1998), and his later article, "Understanding the History of the International Aid System and the Development Research Tradition: The Case of the Disappearing Religious NGOs," *Forum for Development Studies* 33, no. 2 (December 2006): 341–66.

37. Benthall and Bellion-Jourdan, *The Charitable Crescent*, 87.

38. Philip Fountain, "Proselytizing Development," in *Routledge Handbook of Religions and Development*, ed. Emma Tomalin (London: Routledge, 2015), 89. I discussed my thesis of the overlap of religion as development in "Cham Muslims of Cambodia," as with diplomatic "missions" of outreach to Muslims in Cambodia, with Fountain in Jogjakarta, Indonesia, in 2008. For another similar argument, see Oscar Salemink, "Development Cooperation as Quasi-Religious Conversion," in Giri, van Harskamp, and Salemink, *The Development of Religion, the Religion of Development*, 121–30.

39. Fountain, "Proselytizing Development," drawing on an original article about Islam by Mohammed R. Kroessin and Abdulatifah Mohamed, "Saudi Arabian NGOs in Somalia: 'Wahabi' Da'wah or Humanitarian Aid?," in *Development, Civil Society and Faith-Based Organisations: Bridging the Sacred and the Secular*, ed. Gerald Clark and Michael Jennings (New York: Palgrave Macmillan, 2008), 89–90. Fountain's original field research has been on Christian communities and disaster relief in Indonesia; more recent work is Philip Fountain and Laura S. Meitzner Yoder, "Quietist Techno-Politics: Agricultural Development and Mennonite Mission in Indonesia," in *The Mission of Development: Religion and Techno-Politics in Asia*, ed. Catherine Scheer, Philip Fountain, and R. Michael Feener (Leiden: Brill, 2018), 214–42.

40. Fountain, "Proselytizing Development," 91.

41. Two of these foundational works that still are especially relevant to Islam are Antonio Escobar, "Beyond the Search for a Paradigm?: Post-Development and Beyond," *Development* 43, no. 4 (December 2000): 11–14; and Majid Rahnema, "Afterword: Towards Post-Development: Searching for Signposts, a New Language, and New Paradigms," in *The Post-Development Reader*, ed. Majid Rahnema and Victoria Bawtree (Atlantic Highlands, NJ: Zed, 1997), 405–29.

42. Wendy Tyndale, "Idealism and Practicality: The Role of Religion in Development," *Development* 46, no. 4 (December 2003): 23. See also discussion in Tyndale's article, "Faith and Economics in 'Development': A Bridge Across the Chasm?," *Development Practice* 10, no. 1 (February 2000): 9–18.

43. For example, this is not unlike the argument put forward by the Nobel Prize-winner Amartya Sen, *Development as Freedom* (New York: Anchor, 1999), and Martha Nussbaum's paired "capabilities" approach to development philosophy, *Women and Human Development: The Capabilities Approach* (Cambridge: Cambridge University Press, 2000).

44. For example, Enlightenment values expressed in Murray Bookchin, *The Ecology of Freedom: The Emergence and Dissolution of Hierarchy* (Oakland, CA: AK, 2005), and other works in social and political ecology from a Marxian viewpoint, such as

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those surveyed in Carolyn Merchant, *Radical Ecology: The Search for a Livable World* (New York: Routledge, 2005).

45. Arvind Sharma, "Foreword," in *Visions of Development: Faith-Based Initiatives*, ed. Wendy Tyndale (London: Ashgate, 2006), xiii.

46. See the overview in the widely read study by Victoria Lawson, *Making Development Geography* (New York: Routledge, 2014); and consideration in Arun Agrawal, *Environmentality: Technologies of Government and the Making of Subjects* (Durham, NC: Duke University Press, 2005).

47. See Gade, "Tradition and Sentiment" for further discussion.

48. Jonathan Rigg, *Southeast Asia: The Human Landscape of Modernization and Development*, 2d ed. (London: Routledge, 1997), 56.

49. Tania Murray Li, *The Will to Improve: Governmentality, Development, and the Practice of Politics* (Durham, NC: Duke University Press, 2007).

50. This continues to draw on material from the unpublished article by the author: Gade, "Cham Muslims of Cambodia."

51. Osman Ysa, *The Cham Rebellion: Survivors' Stories From the Villages*, ed. Anna M. Gade (Phnom Penh: Documentation Center of Cambodia, 2006).

52. For example, see Govert J. Buijs, "Religion and Development," in Giri, van Harskamp, and Saleminck, *The Development of Religion, the Religion of Development*, 101–8, for a survey of major themes of interventionism and development.

53. Benthall and Bellion-Jourdan, *The Charitable Crescent*, 91–92.

54. My dissertation research in Indonesia in 1995–96 had worked closely with such groups.

55. Consider, for example, the publication *Where Is the Wealth of Nations? Measuring Capital for the Twenty-First Century* (Washington, DC: World Bank, 2006).

56. For example, Jonathan Berkey, *Transmission of Knowledge in Medieval Cairo: A Social History of Islamic Education* (Princeton: Princeton University Press, 1992); and George Makdisi, *The Rise of Colleges: Institutions of Learning in Islam and the West* (Edinburgh: Edinburgh University Press, 1984).

57. A definitive study is Fachruddin Majeri Mangunjaya, *Ekopesantren: Bagaimana Merancang Pesantren Ramah Lingkungan?* (Jakarta: Yayasan Obor, 2014); and also Mangunjaya, *Mempertahankan Keseimbangan: Perubahan Iklim, Keanekaragaman Hayati, Pembangunan Berkelanjutan, dan Etika Agama* (Jakarta: Yayasan Obor, 2013). Eco-pesantren are described and explained in more detail in Gade, "Tradition and Sentiment," which is based on a survey of more than a dozen eco-pesantren across Java after 2010. See Gade, *Perfection Makes Practice* (Honolulu: University of Hawai'i Press) on Islamic education and Muslim religious and secular schooling in Indonesia, including pesantren.

58. The foundational study of pesantren in Indonesia is Zamakhsjayri Dhofier, *The Pesantren Tradition: The Role of the Kyai in the Maintenance of Traditional Islam in Java*, 2d ed. (Tempe: Arizona State University Press, 1999).

59. See the discussion in James Hoesterey, *Rebranding Islam: Piety, Prosperity, and a Self-Help Guru* (Stanford: Stanford University Press, 2015).

60. *Sedekah* is a key idea in contemporary Islamic thought and practice in modern Indonesia, with some preachers, like the eminent Yusuf Mansour, having first come to prominence as *da'i sedekah*, or promoters of a certain kind of prosperity

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teaching based on charity that was something of a religious fad across Indonesia in the late aughts. I collected dozens of such books in mainstream bookstores for research on an unpublished article on the trend in 2008: for one example, see Yusuf Mansur, *The Miracle of Giving: Keajiban Sedekah* (Rawamangun, East Java: Zikrul Hakim, 2008). The idea is that Allah grants reward for charity, and thus one may calculate and anticipate the reward to come by charitable giving in the present, showing the calculation of reward based on investment. Scrupulously “accounting” good deeds in anticipation of reward in the afterlife is a very old practice of Islamic piety in Java, as evidenced by lengthy discussion in Andrew Beatty, *Varieties of Javanese Religion: An Anthropological Account* (Cambridge: Cambridge University Press, 1999). Amira Mittermaier picks up on these themes in “Trading with God: Islam, Calculation, Excess,” in *A Companion to the Anthropology of Religion*, ed. J. Boddy and M. Lumbeck (Chichester: Wiley-Blackwell, 2015), 274–93. Note this is a different kind of charity than the legal almsgiving, *zakat*, required by Islamic ritual norms. (Like “Islamic education,” the study of Islamic charity and pious endowment are both classical subfields of Islamic studies.)

61. For example, Miftahulhaq, *Mengapa Gerakan Shodaqoh Sampah*, (Jogjakarta: MLH PP Muhammadiyah, n.d.). The measure has been implemented across Indonesia (such as West Java), but the original impetus seems to have come from a recycling center in Bantul, near Jogjakarta. One study of the initiative and impact in Indonesian is a paper given in Environmental Science at Diponogoro University by Abdul Fatah in 2013, “Pengelolaan Shodaqoh Sampah di Kabupaten Bantul, Daerah Istimewa Yogyakarta,” <http://reprints.undip.ac.id/40728/>.

62. For more discussion, see Gade, “Indonesian Islamic Law of the Environment” and the Indonesian-language website of Dr. Fachruddin Mangunjaya, <http://agamadanekologi.blogspot.com/>, which includes text and links to many of these declarations from the Majelis Ulama Indonesia (MUI, the Indonesian Council of Religious Scholars).

63. Kalimantan MUI had issued such fatwas in 2004.

64. The full text of what has become known as the “tiger fatwa” is available at <http://www.arcworld.org/downloads/Fatwa-MUI-English-Jun-2014.pdf>. There was also more recently a similar fatwa in Terengganu Malaysia in 2016, as in <http://cleanmalaysia.com/2016/02/04/islamic-clerics-in-terengganu-issue-a-fatwa-against-wildlife-trafficking/>.

65. Gade, “Tradition and Sentiment.”

66. See the online press release of the international Rainforest Action Network, which claims some credit for the decision: https://www.ran.org/ps_land_rights; and also Tania Murray Li, “Masyarakat Adat, Difference, and the Limits of Recognition in Indonesia’s Forest Zone,” *Modern Asian Studies* 35, no. 3 (July 2001): 645–76.

67. Holmes Rolston III, *Environmental Ethics: Duties and Values in the Natural World* (Philadelphia: Temple University Press, 1988); and *Conserving Natural Value* (New York: Columbia University Press, 1994).

68. The most frequently cited academic English-language treatment of “values” and conservation with respect to Islam is O. Manzoor, “Environment and Values: The Islamic Perspective,” in Z. Sardar, ed., *The Touch of Midas: Science, Values, and Environment in Islam and the West* (Manchester: Manchester University Press, 1984).

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There are also numerous relevant works by Abu Bakr Baqadir, such as *Environmental Protection in Islam* (Gland: IUCN—the World Conservation Union, 1994). In Indonesia, work by Fachruddin Mangunjaya includes *Konservasi Alam Dalam Islam* (Jakarta: Yayasan Obor, 2005); and “Developing Environmental Awareness and Conservation Through Islamic Teachings,” *Journal of Islamic Studies* 22, no. 1 (January 2011): 36–49; and see Fachruddin Majeri and Ahmad Sudirman Abbas, *Khazanah Alam: Menggali Tradisi Islam Untuk Konservasi* (Jakarta: Yayasan Obor, 2009).

69. The public website for the project is http://www.mcatookit.org/Field_Projects/Field_Projects_Indonesia_Koon_MCA.html.

70. Charles Zerner, “Through a Green Lens: The Construction of Customary Environmental Law and Community in Indonesia’s Maluku Islands,” *Law and Society Review* 28, no. 5 (December 1994): 1079–122.

71. Eliza Kissya, *kèwang* for Haruku Island (and a Christian), for example, manages the annual *sasi lomba (ikan)*, or fish spawning, on his island for Muslim and Christian residents. A recipient of the prestigious national Kalpataru Prize from the Ministry of the Environment, during my visit with him at his home in 2015 he shared his songs and poetry, which express local “culture,” connected with conservation. See the related videography at <https://www.youtube.com/watch?v=uK-ILpEpKn0>.

72. For example, Charles Tripp, *Islam and the Moral Economy: The Challenge of Capitalism* (Cambridge: Cambridge University Press, 2006).

73. Timothy Mitchell, *Carbon Democracy: Political Power in the Age of Oil* (London: Verso, 2013).

74. The announcement may be found online at <http://islamicclimatedeclaration.org/islamic-declaration-on-global-climate-change/>.

75. Shahab Ahmed, *What Is Islam?: The Importance of Being Islamic* (Princeton: Princeton University Press, 2015).

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1. How this works is explained in detail in Anna M. Gade, *Perfection Makes Practice: Learning, Emotion, and the Recited Qur'an in Indonesia* (Honolulu: University of Hawai'i Press, 2004).

2. *Tafsir al-Jalalayn* is a shortened and combined version of two classical commentaries. It is the standard work of Qur'anic exegesis studied at the intermediate-advanced level throughout schools of Sunni Islam, Asia to Africa.

3. Toshihiko Izutstu, *God and Man in the Qur'an* (New York: Books for Libraries, 1980 [1964]); and *Ethico-Religious Concepts in the Qur'an* (Montreal: McGill University Press, 1966); there is also the classic, Fazlur Rahman, *Major Themes of the Qur'an*, 2d ed. (Chicago: University of Chicago Press, 2009). I apply a method modeled on this also in a book-length general introduction to the Qur'an, Anna M. Gade, *The Qur'an: An Introduction* (Oxford: Oneworld, 2010).

4. To view the scriptural tendency in textually oriented approaches in the academic study of religion as well as core humanities, thanks to ongoing synergies of

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biblical studies and “world religions,” see Wilfred Cantwell Smith, ed., *What Is Scripture?: A Comparative Approach* (Minneapolis: Fortress, 1993).

5. A classic example is Q. 3:7, which distinguishes the important hermeneutical categories of “clear” and “unclear” (*muhkamat* and *mutashabihat*) verses of the Qur'an.

6. Fazlun Khaled, “Islamic Basis for Environmental Protection,” in *Encyclopedia of Religion and Nature*, ed. Bron Taylor and Jeffrey Kaplan (New York: Continuum, 2005), 1:880 (punctuation added). In *Green Deen: What Islam Teaches About Protecting the Planet* (San Francisco: Berrett-Koehler, 2010), 5, Ibrahim Abdul Matin opens his book by developing a framework he attributes to Faraz Khan: *tawhid* (unity), *ayat* (signs), *khalifah* (stewardship), *amana* (“trust”/covenant), *‘adl* (justice), and *mizan* (identified as living with nature, lit. “balance”).

7. Yusuf Al-Qaradawi, *Ra'it al-bi'ah fi shari'at al-islam* (Cairo: Dar Al-Shuruq, 1421/2001), 13.

8. A short survey of such material is by Frederick Denny's blog post, “Islam and Ecology: A Bestowed Trust, Inviting Balanced Stewardship,” <http://fore.yale.edu/religion/islam/>. See also Fazlun Khalid, *Qur'an, Creation and Conservation* (Birmingham: IFEEES, 2000).

9. Richard Foltz, “‘This She-Camel of God Is a Sign to You’: Dimensions of Animals in Islamic Tradition and Muslim Culture,” in *A Communion of Subjects: Animals in Religion, Science, and Ethics*, ed. Paul Waldau and Kimberley Patton (New York: Columbia University Press, 2006), 149–59.

10. Mawil Izzi Dien writes: “In modern terms *fasad* can be taken to mean the different forms of environmental damage, such as soil erosion or land and marine pollution.” He continues: “According to Baydawi the meaning of *fasad* is ‘dryness of the land, many fires, and many drowned and a reduction in the blessings of God.’ While Ibn Kathir states that *fasad* will result in ‘reducing the amount of crops in both food plants and fruits.’” He cites Sabuni, *Sawfat al-tafasir*. Mawil Izzi Dien, in *The Environmental Dimensions of Islam* (Cambridge: Lutterworth, 2000), 53. The idea is used in arguments condemning and even criminalizing environmental degradation, since it is one of the *hudud* (limits) set by God. Yusuf al-Qaradawi highlights the term as well in his book, *Ra'it al-bi'ah fi shari'at al-islam* (Cairo: Dar al-Shuruq, 2001).

11. An exception to this is the verse well-known to Sufis especially, the statement of the Queen of Sheba: “Kings destroy a town (*afsaduha*) when they enter it and reduce its proud inhabitants to subjection. This they will always do” (Q. 27:34).

12. This same chapter, Surat Al-A'raf, also contains a famous verse telling believers to call on God by his “beautiful names” in the words: “And to Allah belong the Most Beautiful Names (*al-asma al-husna*), so call Him by them” (Q. 7:180).

13. Muhjiddin Mawardi, ed., *Pendidikan Lingkungan: Membangun Kesadaran dan Perilaku Ramah Lingkungan* (Jogjakarta: Lembaga Lingkungan Hidup Pimpinan Pusat Muhammadiyah, 2009). Muhammadiyah is same group mentioned with respect to education and recycling programs in chapter 2.

14. Ramon Harvey, *Qur'an and the Just Society* (Edinburgh: Edinburgh University Press, 2017).

15. Izzi Dien, *The Environmental Dimensions of Islam*, 24.

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16. Izzi Dien, 51–52.

17. Izzi Dien, 51–52.

18. Al-Jawziyya, *Miftah dar al-sa'ada*, translated and quoted by Izzi Dien in *The Environmental Dimensions of Islam*, 26–27.

19. “Have We not made the earth a receptacle (*kifata*) [to draw together the living and the dead]?” (Q. 77:25–26).

20. Al-Jawziyya, *Miftah dar al-sa'ada*, which Izzi Dien translates and quotes in *The Environmental Dimensions of Islam*, 26–27.

21. Forest management, colonialism, and development, as in Southeast Asian cases with Nancy Lee Peluso's study, *Rich Forests, Poor People: Resource Control and Resistance in Java* (Berkeley: University of California Press, 1992). In a book-length account of Muslim-majority Southeast Asia, Elizabeth Fuller Collins presents the detrimental structural effects of developmentalism to lowland forests, *Indonesia Betrayed: How Development Fails* (Honolulu: University of Hawai'i Press, 2007). On the experience of forests in Indonesia, see also the work of anthropologist Anna Tsing, *Friction: An Ethnography of Global Connection* (Princeton: Princeton University Press, 2004); and her earlier book, *In the Realm of the Diamond Queen (Marginality in an Out-of-the-Way Place)* (Princeton: Princeton University Press, 1994). See also Anna M. Gade, “Smoke, Fire, and Rain: Islamic Ethics in a Time of Burning,” in *Piety, Politics, and Ethics in Southeast Asian Islam: Beautiful Behavior*, ed. Robert Rozeznal (London: Bloomsbury, 2018), 169–88.

22. Usually, the word *sunnah* appears in connection to the Prophet Muhammad in Islam, as his exemplary model to follow, known through hadith reports. This precise meaning was codified in the earlier part of the ninth century by Sunni scholars like Al-Shafi'i (d. 820), whose most original theorization in jurisprudential tradition may have been precisely this; before that time the notion of *sunnah* as a basis for legal rulings was broader than the model of the Prophet, including the original community of Muslim believers (in Maliki tradition). However, the term *sunnah* does not appear in any of these senses of “following the Prophet Muhammad” in the Qur'an (which instructs its listeners to “obey” him). Rather, the expression *sunnah Allah* appears fourteen times in the Qur'an, usually emphasizing the idea of something that does not change over time, neither with communities nor generations.

23. This is a summary of some of the key points made by Sarra Tlili throughout her book, *Animals in the Qur'an* (Cambridge: Cambridge University Press, 2012), which emphasizes the nonanthropocentrism of the Qur'an.

24. The commentator Ibn Kathir states that this means that animals are divided into types and known by their own names; Qurtubi states that *umam* means groups like human beings. However, it seems that some scholars did consider it possible that animals had their own prophets. Others, according to Izzi Dien, refuted this claim—Ibn Hazm, for example—on the grounds that only humans and jinn can correctly perform acts of worship (*'ibadah*). Izzi Dien, *The Environmental Dimensions of Islam*, 45–46.

25. In his classic *Major Themes of the Qur'an*, Rahman emphasizes “signs” as well.

26. Recall the previous discussion of the habitable landscape as “environment.” The act of “reviving the dead land” (*mawat*) and land development is a key area of

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applied Islamic law and ethics. See Izzi Dien, *The Environmental Dimensions of Islam*, 37–42.

27. For explanation of the Qur'an's dynamic style including classical theory of *iltifat* (unexpected shifts in register), see Gade, *The Qur'an*, 176.

28. Izzi Dien, *The Environmental Dimensions of Islam*, 27.

29. Kaveh L. Afrasiabi, "Islam and Post-Anthropocentrism," in *Encyclopedia of Religion and Nature*, 1:872–73. For general discussion, see Mary Midgeley, "The End of Anthropocentrism?," in *Philosophy and the Natural Environment*, ed. Robin Attfield and Andrew Besley (Cambridge: Cambridge University Press, 1994), 103–13.

30. The original article introducing the *Anthropocene* is Paul J. Crutzen and Eugene F. Stoermer, "The Anthropocene," *Global Change Newsletter* 41 (May 2000): 17–18, presenting it as a geological concept, and it is reconsidered geologically in work like Jan Zalasiewicz and Mark Williams, "The New World of the Anthropocene," *Environmental Science and Technology* 44, no. 7 (April 2010): 2228–31. Contemporary perspectives and applications in environmental humanities are introduced by Robert Nixon in "The Anthropocene: Promises and Pitfalls of an Epochal Idea," in *Edge Effects*, <http://edgeeffects.net/anthropocene-promise-and-pitfalls/>.

31. The introductory work by Jeremy Davies, *The Birth of the Anthropocene* (Berkeley: University of California Press, 2016), is invested in bringing the concept into environmental history, locating it humanistically within a wider arc of planetary processes. Phenomenological and historical dimensions merge in the arts, for example, as in a transatlantic project to collect symbolic artifacts, placed on display, begun at UW-Madison, "The Anthropocene Slam," documented in Gregg Mitman, Marco Armiero, and Robert S. Emmett, eds., *Future Remains: A Cabinet of Curiosities for the Anthropocene* (Chicago: University of Chicago Press, 2018).

32. Marion Holmes Katz, "Broadening the Category of Prayer," *Reverberations*, a blog of the Social Science Research Council: <http://forums.ssrc.org/ndsp/2015/09/18/broadening-the-category-of-prayer/>.

4. Roots and Branches of Islamic Environmental Justice

1. For example, A. Kevin Reinhart, "Islamic Law as Islamic Ethics," *Journal of Religious Ethics* 11, no. 2 (Fall 1983): 186–203; and Frederick Denny, "Ethical Dimensions of Islamic Ritual Law," in *Religion and Law: Biblical-Judaic and Islamic Perspectives*, ed. Edwin B. Firmage, Bernard Weiss, and John W. Welch (Winona Lake, IN: Eisenbrauns, 1990), 199–210.

2. For introduction, see Wael B. Hallaq, *Shari'a: Theory, Practice, Transformation* (Cambridge: Cambridge University Press, 2009); and Mohammad Hashim Kamali, *Shari'ah Law: An Introduction* (Oxford: Oneworld, 2008).

3. Representative discussion of "planetary" environmental religious ethics which depend on Christian-majority or post-Christian systems as a normative frame of reference, and with varying degrees of pluralism as parameters, include Whitney Bauman, *Religion and Ecology: Developing a Planetary Ethic* (New York: Columbia University Press, 2014); and Anna Peterson, *Being Human: Ethics, Environment, and*

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Our Place in the World (Berkeley: University of California Press, 2001); each offers a critical perspective on gender and sexuality. Established religious ethics of environment from Christian and Jewish perspectives are represented in the book's bibliography.

4. Roderick Nash, *The Rights of Nature: A History of Environmental Ethics* (Madison: University of Wisconsin Press, 1989).

5. Webb Keane represents the "ontological trend" in Anthropology with "Ontologies, Anthropologists, and Ethical Life," *HAU: Journal of Ethnographic Theory* 3, no. 1 (Spring 2013): 186–91, and Webb Keane, "Self-Interpretation, Agency, and the Objects of Anthropology: Reflections on a Genealogy," *Comparative Studies in Society and History* 45, no. 2 (April 2003): 222–48. More specifically on the subject of environmental personhood from a Latin American Studies perspective, widely read works are Eduardo Kohn, *How Forests Think: Toward an Anthropology Beyond the Human* (Berkeley: University of California Press, 2013); and Marisol de la Cadena, *Earth Beings: Ecologies of Practice Across Andean Worlds* (Durham, NC: Duke University Press, 2015).

6. Drawing in part on Gandhi's ideas of "self-realization," the seminal article by Arne Naess on "deep ecology" is "The Shallow and the Deep, Long-Range Ecology Movement: A Summary," *Inquiry* 16 (1973). For Islamic deep ecology especially in connection to Islamic law and ethics see Nawal H. Ammar, "Islam and Deep Ecology," in *Deep Ecology and World Religions: New Essays on Sacred Grounds*, ed. D. Barnhill and R. Gottlieb (New York: State University of New York Press, 2001), 193–212, and Adi Setia, "The Inner Dimension of Going Green: Articulating an Islamic Deep-Ecology," in *Islam and Science* 5, no. 2 (Winter 2007): 117–50.

7. Carolyn Merchant gives an overview of ecofeminism in *Radical Ecology: The Search for a Livable World* (New York: Routledge, 2005), 193–222. A foundational work in feminist ecology is Val Plumwood, *Feminism and the Mastery of Nature* (New York: Routledge, 1994). Christian frameworks do not so readily transfer to Islam as generalized theory, however, largely due to the grounding in Christology (a common feature of emancipationist-liberationist Christianity overall) and its incarnationist assumptions; for example, the landmark work in systematic theology of the earth by Sallie McFague, *The Body of God: An Ecological Theology* (Minneapolis: Fortress, 1993).

8. Christopher Stone, *Should Trees Have Standing?: Law, Morality and the Environment* (Oxford: Oxford University Press, 2010 [1972]). See also Cullinan Cormac, *Wild Law: A Manifesto for Earth Justice*, 2d ed. (White River Junction, VT: Chelsea Green, 2011); and contemporary initiatives like indigenous "Earth Law" and those by advocates like the U.S.-based Community Environmental Legal Defense Fund.

9. Kay Milton's decisive discussion of romantic anthropology of environmentalism may be found in her introduction to *Environmentalism: The View from Anthropology* (London: Routledge, 1993), 1–16; there is more general discussion in her *Environmentalism and Cultural Theory* (New York: Routledge, 1996). See also J. Baird Callicott and Roger T. Ames, eds., *Nature in Asian Traditions of Thought: Essays in Environmental Philosophy* (Albany: State University of New York Press, 1989).

10. Franz Rosenthal discusses *adab* in detail in *Knowledge Triumphant: The Concept of Knowledge in Medieval Islam* (Leiden: Brill 1970). *Adab* is also widely used as a word

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for “literature” itself, drawing on the idea of the civilizational aspects of Islamic and Arabic belles lettres. The term came to be used by South Asianists in the post-cold war era of “area studies” to explain Islam, as in the volume edited by Barbara Daly Metcalf, *Moral Conduct and Authority: The Place of Adab in South Asian Islam* (Berkeley: University of California Press, 1984); and is reformulated in terms of Southeast Asian Islam in Robert Rozehnal, ed., *Piety, Politics, and Ethics in Southeast Asian Islam: Beautiful Behavior* (London: Bloomsbury, 2019).

11. Pierre Bourdieu, *Outline of a Theory of Practice* (Cambridge: Cambridge University Press, 1972).

12. This is a field in which this scholar has done detailed research in primary sources and documentary history of the Islamic medieval era. Safei El-Deen Hamed also discusses the concept of *hisbah* in some depth in “Seeing the Environment Through Islamic Eyes: Appreciation of *Shari`a* to Natural Resources Planning and Management,” *Journal of Agricultural and Environmental Ethics* 6, no. 2 (September 1993): 145–64.

13. Mawil Izzi Dien, *The Environmental Dimensions of Islam* (Cambridge: Lutterworth, 2000), 93.

14. Izzi Dien, 95. Izzi Dien’s further points out that “*hisba* represents the way in which Islamic ethics can operate without direct legal authority.” Compare to the discussion of the practice of justice in Lawrence Rosen, *The Anthropology of Justice: Law as Culture in Islamic Society* (Cambridge: Cambridge University Press, 1989).

15. Ibrahim Abdul-Matin, *Green Deen: What Islam Teaches About Protecting the Planet* (San Francisco: Berrett-Koehler, 2010), 2–3. Elsewhere the author cites Hesam Z. Joma, “The Earth Is a Mosque,” Ph.D. diss. (Philadelphia: University of Pennsylvania, 1991).

16. Jonathan Benthall and Jérôme Bellion-Jourdan, *The Charitable Crescent: Politics of Aid in the Muslim World* (London: I. B. Tauris, 2003), 18. Across modern Muslim social thought, Islam reformulates social issues into a system that includes economic justice, as recognized by voices of nationalist and other forms of Muslim socialism in the mid-twentieth century. For example, Sayyid Qutb, *Social Justice in Islam*, trans. John B. Hardie (Oneonta, NY: Islamic Publications International, 2000).

17. Izzi Dien, *The Environmental Dimensions of Islam*, 49.

18. For more discussion, see Anna M. Gade, “Smoke, Fire, and Rain: Islamic Environmental Ethics in a Time of Burning,” in *Piety, Politics, and Ethics in Southeast Asian Islam: Beautiful Behavior*, ed. Robert Rozehnal (London: Bloomsbury, 2019), 169–88.

19. Video of the *salat al-istisqa* in Makkah on October 29, 2015 may be viewed at <https://www.youtube.com/watch?v=AeMxBOPZkG0> (accessed 15 October 2016).

20. A representative work in English on water resource management from the perspective of Muslim environmentalism is Naser I. Faruqi, Asit K. Biswas, and Murad J. Bino, *Water Management in Islam* (Tokyo: United Nations University Press, 2001). A very short overview may be found in Richard Foltz, “Water—in Islam,” in *Encyclopedia of Religion and Nature*, ed. Bron Taylor and Jeffrey Kaplan (New York: Continuum, 2005), 2: 1714–16.

21. Izzi Dien, *The Environmental Dimensions of Islam*, 32–33.

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22. In “Impurity/No Danger,” *History of Religions* 30, no. 1 (August 1990): 1–24, A. Kevin Reinhart makes a distinction between ritual purity (requiring water if available) and spiritual and religious ideas.

23. Izzi Dien, *The Environmental Dimensions of Islam*, 31. See also Ali Ahmad, “Islamic Water Law as an Antidote for Maintaining Water Quality,” *University of Denver Water Law Review* (Summer 1999): 170–88.

24. This is transcribed and translated from the short video “Water Resources and Mosque Design,” in which Budi Faisal explains water resource management and mosque design in the area of the Javanese metropolis, Bandung, available online in the collection Green Islam in Indonesia: <https://vimeo.com/album/1858731/video/37842684>.

25. Izzi Dien discusses these points (*The Environmental Dimensions of Islam*, 34) and adds this comment, “This *jabr* partnership applies, in my opinion, to all public elements of life, including clean air and a quiet environment.”

26. Izzi Dien, 31.

27. In Arabic the modern word for “rights” is the plural of this word, *huquq*, as in *al-huquq al-asasiyya al-insanyya*, or “basic human rights”; *haqq* is a key Qur’anic term and name of God (Al-Haqq), also meaning “truth.” Analysis may be found in David F. Johnston, “Maqasid Al-Shari’a: Epistemological Hermeneutics of Muslim Theologies of Human Rights,” *Die Welt Des Islams* 47, no. 2 (January 2007): 149–87.

28. There is more discussion of ants as a special case in Sarra Tlili, *Animals in the Qur’an* (Cambridge: Cambridge University Press, 2012), 186.

29. Richard Foltz, *Animals in Islamic Tradition and Muslim Cultures* (Oxford: One-world, 2006), discusses contested views of sacrifice and meat eating in depth (see pp. 25–28 and 121–27). Kecia Ali analyzes vegetarianism in “Muslims and Meat-Eating: Vegetarianism, Gender, and Identity,” *Journal of Religious Ethics* 43, no. 3 (June 2015): 268–88. For foundational work on animal rights, see Tom Regan, *The Case for Animal Rights* (Berkeley: University of California Press, 2004 [1983]); and a more specific treatment is given in Al-Hafiz B. A. Masri, “Animal Experimentation: The Muslim Viewpoint,” in *Animal Sacrifices: Religious Perspectives on the Use of Animals in Science*, ed. Tom Regan (Philadelphia: Temple University Press, 1986), 171–98. A comprehensive treatment is given in Sarra Tlili, “Animal Ethics in Islam: A Review Article,” *Religions* 9, no. 9 (September 2018): 269–87.

30. Izzi Dien, *The Environmental Dimensions of Islam*, 45–46, citing ‘Izz al-Din ‘Abd al-Salam, *Qawa’id al-ahkam fi masalih al-an’am*.

31. Elizabeth Kolbert, *The Sixth Extinction: An Unnatural History* (London: Picador, 2015).

32. For example, see Nawal H. Ammar, “Ecological Justice and Human Rights for Women in Islam,” in *Islam and Ecology: A Bestowed Trust*, ed. Richard Foltz, Frederick M. Denny, and Azizan Baharuddin (Cambridge, MA: Harvard University Press, 2003), 377–92; and more general discussion in Emma Tomalin, “Religion and a Rights-Based Approach to Development,” *Progress in Development Studies* 6, no. 2 (April 2006): 93–108.

33. Further discussion of this idea, as well as the points and examples in this section, appears in altered form in Anna M. Gade, “Indonesian Islamic Law of the

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Environment: *Fatwa and Dakwah*,” *Worldviews: Global Religions, Culture, and Ecology* 19, no. 2 (January 2015): 161–83.

34. Yusuf Qaradawi, *Ra'it al-bi'ah fi shari'at al-islam* (Cairo: Dar Al-Shuruq, 1421/2001) tends to focus on classical sources and the need for environmental education drawing on the basics (*usul al-din*). See also Muhammad Husayni Shirazi, *Al-fiqh al-bi'at* (Beirut: Mu'assasat al-wa'i al-islami, 1420/2000).

35. General treatments of “Islamic law of the environment” in English include Ali Ahmad, *Cosmopolitan Orientation of the Process of International Environmental Law-making: An Islamic Law Genre* (Lanham, MD: University Press of America, 2001); Ali Ahmad, “Islam and Environmental Law,” in *Encyclopedia of Religion and Nature*, 1:885–87; Omar Bakhashab, “Islamic Law and the Environment: Some Basic Principles,” *Arab Law Quarterly* 3, no. 3 (January 1988): 287–98. There is also a often-reprinted article by Mawil Izzi Dien, “Islamic Environmental Ethics, Law, and Society,” in *Ethics of Environment and Development: Global Challenge and International Response*, ed. J. Ronald Engel and Joan Gibb Engel (Tucson: University of Arizona Press, 1990), 189–98.

36. Writings on “Islamic resource management” include Ali Ahmad and Carl Bruch, “Maintaining Mizan: Protecting Biodiversity of Muslim Communities in Africa,” *Environmental Law Reporter* 32, no. 1 (January 2002): 20–37; Saleem Ali, *Treasures of the Earth: Need, Greed, and a Sustainable Future* (New Haven: Yale University Press, 2009); and Safei El-Deen Hamed, “Seeing the Environment Through Islamic Eyes.”

37. Ahsin Sakho Muhammad, Husein Muhammad, Roghib Muhrur, Ahmad Sudirman Abbas, Amalia Firman, Fachruddin Mejeri Mangunjaya, Kamal Ib. Pasha, and Martha Andriana, eds., *Fiqh Al-Bi'ah/Fiqih Lingkungan* (Jakarta: Conservation International Indonesia, 2006), 223.

38. See discussion in John R. Bowen, *Islam, Law and Equality in Indonesia: An Anthropology of Public Reasoning* (Cambridge: Cambridge University Press, 2003); and R. Michael Feener, *Muslim Legal Thought in Modern Indonesia* (Cambridge: Cambridge University Press, 2007).

39. Lawrence Rosen, *The Anthropology of Justice: Law as Culture in Islamic Society* (Cambridge: Cambridge University Press, 1989).

40. K. H. Thonthawi puts forward the rationale to follow in a video interview, “Caring for and ‘Corrupting the Earth’: The Promise and the Warning,” accessible online in the collection Green Islam in Indonesia, <https://vimeo.com/album/1854899/video/37635905>.

41. Criminal law is fairly rare as a rationale in modern Islamic reasoning; environmental concepts relate much more to “aims of the law” and “common good” or to a more ethicized notion of *ifsad/fasad* (corruption).

42. Alie Yafie, *Merintis Fiqh Lingkungan Hidup* (Jakarta: Yayasan Amanah, 2006).

43. Yafie, 293–196.

44. It is highlighted especially in Yafie, 14–15.

45. Yafie, 15, 224.

46. E.g., Yafie, 218.

47. Material in this section also appears in the author’s “Indonesian Islamic Law of the Environment.” For an introduction to Islamic fatwas, see Muhammad Khalid

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Masud, Brinkley Messick, and David Powers, eds., *Islamic Legal Interpretation: Muftis and Their Fatwas* (Cambridge, MA: Harvard University Press, 1996).

48. Foundational studies of marginalized communities in the U.S. and “environmental racism” include Robert Bullard, *Dumping in Dixie: Race, Class, and Environmental Quality* (Boulder: Westview, 2000); David Naguib Pellow, *Garbage Wars: The Struggle for Environmental Justice in Chicago* (Cambridge, MA: MIT Press, 2004); and Pellow, *What Is Critical Environmental Justice?* (Cambridge: Polity, 2017).

49. English-language work on Islamic environmental justice features that of Nawal H. Ammar, “Islam and Eco-Justice,” in *Encyclopedia of Religion and Nature*, 1:862–866; and “An Islamic Response to the Manifest Ecological Crisis: Issues of Justice,” in *Visions of a New Earth: Religious Perspectives on Population, Consumption, and Ecology*, ed. Harold Coward and Daniel C. McGuire (Albany: State University of New York Press, 2000), 131–46.

50. The official meeting was called “Halaqoh Gerakan Nasional Kehutanan dan Lingkungan Hidup Pengurus Besar Nahdlatul Ulama” (gnkl pbnu), July 20–23, 2007, Jakarta.

51. This is specified in the document that was the official resolution of the meeting as “a movement to plant and care for trees, protect the forest, and carry out the conservation of land, water, and all forms of life; clean up rivers, beaches, neighborhoods, settlements, and public areas, and clean up industrial sites of pollution and waste; care for water supplies and watershed areas and improve mining areas to help to prevent flooding” (http://www.nu.or.id/page.php?lang=id&menu=news_list&category_id=6).

52. Videos on fatwas and the MUI featuring Hayu Prabowo may be viewed in the collection Green Islam in Indonesia (www.vimeo.com/hijau) at <https://vimeo.com/album/2057592>. This particular comment is from “The Role of Institute for Honoring the Environment and Natural Resources,” available at <https://vimeo.com/album/2057592/video/48481892>.

53. Fatwa of the MUI No. 04/2014, “On Protection of Endangered Species to Maintain the Balanced Ecosystems” (English version), <http://www.arcworld.org/downloads/Fatwa-MUI-English-Jun-2014.pdf>.

54. See Anna M. Gade, “Indonesian Islamic Law of the Environment,” for more detailed discussion of these and other edicts.

55. For example, Leor Halevi, “The Consumer Jihad: Boycott Fatwas and Nonviolent Resistance on the World Wide Web,” *International Journal of Middle East Studies* 44, no. 1 (February 2012): 45–70.

56. Kantor Menteri Negara Lingkungan Hidup, Departemen Agama Republik Indonesia and Majelis Ulama Indonesia, *Islam Dan Lingkungan Hidup* (Jakarta: Yayasan Swarna Bhumi, 1997).

57. <http://mui-lplhsda.org/pengelolaan-sampah/>. Translation by the author. Compare a very generally worded fatwa from Perlis, Malaysia, against all forms of “pollution” in 2016: <http://cleanmalaysia.com/2016/03/02/muftis-in-perlis-issue-a-fatwa-against-pollution/>.

58. Another river in West Java, the Citarum River, received international attention over the past decades for being one of the most polluted on earth. It was so choked with garbage that no water would flow.

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59. The text of the fatwa is at <http://mui-lplhsda.org/fatwa-majelis-ulama-indonesia-nomor-47-tahun-2014-tentang-pengelolaan-sampah-untuk-mencegah-kerusakan-lingkungan/>.

5. Islamic Humanities

1. Shahab Ahmed, *What Is Islam?: The Importance of Being Islamic* (Princeton: Princeton University Press, 2015); see also Marshall Hodgson, *The Venture of Islam*, 3 vols. (Chicago: University of Chicago Press, 1977); and Lenn E. Goodman, *Islamic Humanism* (New York: Oxford University Press, 2005).

2. See discussion in Timothy Pachirat, *Every Twelve Seconds: Industrialized Slaughter and the Politics of Sight* (New Haven: Yale University Press, 2013).

3. Clifford Geertz, "Religion as a Cultural System," in *The Interpretation of Cultures* (New York: Basic Books, 1973), 87–125.

4. Al-Ghazali makes cases like this in *Deliverance from Error* (*Munkidh min al-dalal*) and *Incoherence of the Philosophers* (*Tahafut al-falasifa*), his critique of Ibn Sina). The points are hardly unique to Al-Ghazali; the great sociologist, Ibn Khaldun (d. 1406), was still making them centuries later.

5. An example of one such approach, in this case tending more to the literary than the linguistic (Lakoff, e.g.), and modest with respect to the psychologization more typical of symbolic cultural anthropology (Geertz, Turner, e.g.), is represented by James Fernandez, ed., *Beyond Metaphor: The Theory of Tropes in Anthropology* (Stanford: Stanford University Press, 1991). In *What Is Islam?* Shahab Ahmed makes much of the importance of Geertzian symbol in the elite textual traditions that he views as formative of Muslims' lifeworlds, "Balkans to Bengal," pp. 246–50 (omitting the Asian regions Geertz himself studied while still drawing on him and other Southeast Asian theorists like Roff). Like Clifford Geertz's comparative "cultural" insights about Indonesia and Morocco in *Islam Observed: Religious Development in Morocco and Indonesia* (New Haven: Yale University Press, 1968), Ahmed views symbols that cross-cut Muslim intellectual subdisciplines to render a category that is all-importantly and essentially "Islamic." Such an argument supports only tangentially and somewhat incidentally the methodological approach here, which is, in contrast, to generalize "environmentalisms" as "Muslim" according to their explicit reliance on Islamic religion. Analysis of the significance of symbol here emphasizes the Geertzian sense of experience and empiricism, much as in American traditions like behavioralism, from which it in fact derives, and not that different from the phenomenology of Dewey and James. Formal Islamic systems for the study of metaphor as in Qur'an, Sufism, or aesthetics represent sophisticated fields like rhetorical analysis that are beyond the scope of this study.

6. The definition is in Geertz, "Religion as a Cultural System," 90–91, which hinges on experiential "moods and motivations": "[A] religion is: a system of symbols which acts to (2) establish powerful, pervasive, and long-lasting moods and motivations in men by (3) formulating conceptions of a general order of existence

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and (4) clothing these conceptions with such an aura of factuality that (5) the moods and motivations seem uniquely realistic.” Along with vivid descriptions of Indonesian performance, the heart of the famous article, however, is Geertz’s drawn-out reflection on specifically the “analytic,” “emotional,” and “moral” dimensions that come together for the ultimate concerns of the humanistic “Problem of Meaning” (108). Geertz treats Indonesian Islam entirely as a repertoire of cultural symbols in *Islam Observed*.

7. An analysis of Al-Ghazali’s modes of knowledge from the perspective of religious studies is Ebrahim Moosa, *Al-Ghazali and the Poetics of Imagination* (Chapel Hill: University of North Carolina Press, 2005).

8. Abu Hamid Al-Ghazali, *The Niche of Lights (Mishkat al-Anwar)*, trans. David Buchman (Provo, UT: Brigham Young University Press, 1998). The verse, Q. 24: 35, reads: “Allah is the Light of the heavens and the earth. His Light is like a niche in which there is a lamp, the lamp is in a glass, the glass is like a glittering star. It is kindled from a blessed olive tree, neither of the east nor the west. Its oil will almost shine, even if no fire has touched it. Light upon light, Allah guides to His Light whomever He pleases and gives the examples (*amthal*) to humankind. Allah has knowledge over everything (*bikulli sha’yin ‘alim*).” “*Alim*” is the adjectival form of the noun, *‘ilm*, which means “science” (often translated also as “knowledge”). Following Aristotle, early and influential Muslim philosophers (like Al-Kindi) and physicists (like Ibn Haytham) had a keen interest in developing both the theory and empirical science of the study of light and optics.

9. In *What Is Islam?*, 370–77, Shahab Ahmed gives examples across Islamic sciences of the phenomenon of the “social hierarchy of knowledge.”

10. Al-Ghazali, *The Niche of Lights of Lights*, 3.

11. Al-Ghazali, 44–52.

12. Al-Ghazali, 4.

13. Al-Ghazali also outlines the eye’s defects as a moral analogy to reason itself, making observations including that an eye can see others but never itself; it does not see objects that are very near, nor those that are very far away; it cannot “perceive what is beyond the veil,” meaning that it cannot ever see under the surface of anything (nor can it perceive more than a fraction of what really exists, including that which is infinite); and finally, an eye will view as being small what is in truth very large. Al-Ghazali, *The Niche of Lights*, 5–8. Al-Ghazali concludes the discussion with the postulation, “You have come to know that the rational faculty is more worthy of the name ‘light’ than ‘eye’” (9). Ralph Waldo Emerson’s quip about a “transparent eyeball,” a reference appearing in his essay “Nature” (see, for example, *Nature And Selected Essays* [New York: Penguin, 2003]), has coincidentally become a key metaphor in environmentalist phenomenology in the American tradition. The remainder of Al-Ghazali’s treatise is an exposition of the extended simile of the Qur’anic verse, in which an element of the simile (see note 8, this chapter: fire, oil, glass, lamp, niche, and so forth) is given an interpretation, typical of esoteric thought in Islam.

14. Al-Ghazali, *The Niche of Lights*, 20.

15. Optics (*al-manazir*) was a major early field of scientific development in Al-Ghazali’s time, building on Aristotelian theory with empirical work of

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Ibn Haytham (d. 1040), and a subject written on with great interest by philosophers Al-Kindi, Ibn Rushd, and Ibn Sina.

16. For an example of some of the abundant material on “Islamic gardens” from an art-historical perspective, see the relatively recent work by D. Fairchild Ruggles, *Islamic Gardens and Landscapes* (Philadelphia: University of Pennsylvania Press, 2008); also articles in the volume edited by Richard C. Foltz, Frederick M. Denny, and Azizan Baharuddin, *Islam and Ecology: A Bestowed Trust* (Cambridge, MA: Harvard University Press, 2003), like Attilio Petruccioli, “Nature and Islamic Urbanism: The Garden in Practice and in Metaphor,” 499–510, and James L. Wescoat Jr., “From the Gardens of the Qur’an to the ‘Gardens’ of Lahore,” 511–26.

17. For example, M. I. H. Farooqi, *Plants of the Quran* (Lucknow: Sidrah, 1989). There is, for example, a project in the UAE to create a Qur’anic garden featuring these species.

18. Recent work in the growing field of animals, environmental humanities, and the study of religion includes Giorgio Agamben, *The Open: Man and Animal* (Stanford: Stanford University Press, 2003); Aaron Gross and Anne Valeley, eds., *Animals and the Human Imagination: A Companion to Animal Studies* (New York: Columbia University Press, 2012); and Paul Waldau and Kimberly Patton, eds., *A Communion of Subjects: Animals in Religion, Science, and Ethics* (New York: Columbia University Press, 2006). See also work by historian of Islam Richard W. Bulliet, *Hunters, Herders, and Hamburgers: The Past and Future of Human-Animal Relationships* (New York: Columbia University Press, 2007).

19. Al-Jahiz, “Flies and Mosquitoes,” an excerpt translated from *Kitab Al-Hayawan* by R. A. Nicholson, in *Anthology of Islamic Literature: From the Rise of Islam to Modern Times*, ed. James Kritzeck (New York: Penguin, 1964), 94–95.

20. For discussion, see Seyyed Hossein Nasr, *Three Muslim Sages: Avicenna—Suhrawardi—Ibn Arabi* (Delmar, NY: Caravan, 1976). As with figures cited in this book with nicknames, “Al-Razi,” and “Tirmidhi,” there are several famous “Suhrawardis” in Islamic intellectual history whom readers should be aware to disambiguate. This same Shihab al-Din Suhrawardi (d. 1191) is also called *al-maqtul* and is a figure not to be confused with the founder of the “Suhrawardiyya” Sufi order, Diya al-Din Ayyub al-Suhrawardi (d. 1168).

21. The climax of the tale expresses a pun in which the birds’ presence all together becomes a single metaphor: they are *Si Murgh*, “Thirty Birds,” who see their Lord (*Simurgh*) as the reflection of themselves in a mirror. Farid Al-din Al-Attar, *Conference of the Birds*, trans. Afkham Darbandi and Dick Davis (New York: Penguin Classics, 1984). Related material may be found in Yahya ibn Habash Suhrawardi, *The Mystical and Visionary Treatises of Shihabuddin Yahya Suhrawardi*, trans. W. M. Thackston (London: Octagon, 1982).

22. In *Hayy Ibn Yaqzan*, Ibn Tufayl took characters and the premise investigated of the intellect as a tabula rasa from a work of Ibn Sina’s (by the same title), but these works are entirely different.

23. Lenn E. Goodman and Richard McGregor, trans., *The Case of the Animals Versus Man Before the King of the Jinn: A Translation from the Epistles of the Brethren of Purity* (Oxford: Oxford University Press, 2012). See also Sarra Tlili’s discussion in “All

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Animals are Equal, Or Are They?: The Ikhwan Al-Safa's Animal Epistle and Its Unhappy End," *Journal of Qur'anic Studies* 16, no. 2 (June 2014): 42–88.

24. S. H. Nasr's study of the Ikhwan Al-Safa' is *An Introduction to Islamic Cosmological Doctrines* (Albany: State University of New York Press, 1993 [1964]).

25. There is more discussion of ants as a special case in Sarra Tlili, *Animals in the Qur'an* (Cambridge: Cambridge University Press, 2012), 186.

26. This figure is not to be confused with the famous alchemist, Abu Bakr Muhammad b. Zakariyya Al-Razi (d. 935), or the mystic Najm al-Din al-Razi (d. 1256), or with others known in the tradition by the nickname "Al-Razi," due to their origins in the same area of Iran. See note 45 in this chapter.

27. Tlili, *Animals in the Qur'an*, 196. The other commentator mentioned is Abu 'Abdullah Al-Qurtubi (d. 1273).

28. Tlili, 196. To environmentalists in the present day, bees are an object of reflection; as American sociobiologist and environmentalist E. O. Wilson has claimed, from the results of his research on ants and bees, they are one of a handful of species on earth (besides humans) showing social complexity and altruism.

29. Tlili, *Animals in the Qur'an*, 196; see also pp. 109 and 161 for her further discussion of the commentary tradition on this verse by eminent classical exegetes like Al-Qurtubi, Al-Tabari, Ibn Kathir, and others, which include the nature of honey, what is the "path" that would be shown to the bee per the Qur'anic text, and so forth.

30. Only some species of bees live communally and produce honey. Other types, like carpenter bees, are solitary and lay their own eggs.

31. In chapter 25 on bees, in *The Case of the Animals Versus Man Before the King of the Jinn*, this appears on pp. 232–37 (although the bee also appears throughout wider discussion).

32. For example, Heather Swan, *Where Honeybees Thrive: Stories from the Field* (University Park: Penn State University Press, 2017).

33. George Saliba, *Islamic Science and the Making of the European Renaissance* (Cambridge, MA: MIT Press, 2011 [2007]). That Muslims anticipated the worldview of Copernicus (contra geocentric Greek tradition of Ptolemy and Aristotle, which held the earth to be at the center of the cosmos) is one of Saliba's central claims. Historical work analyzing Muslim commitments to scientific empiricism, both exoteric and esoteric, and social and cultural change in the modern era include Alireza Doostdar, *The Iranian Metaphysicals: Explorations in Science, Islam and the Uncanny* (Princeton: Princeton University Press, 2018); and Daniel Stoltz, *The Light-house and the Observatory: Islam, Science, and Empire in Late Ottoman Egypt* (Cambridge: Cambridge University Press, 2018).

34. One example of such a work on flora and fauna is Zakariya b. Muhammad b. Mahmud Abu Yahya al-Qazwini, *Aja'ib al-Makhluqat* ("The Wonders of Creation"), from the thirteenth century.

35. See the classic writing by Dimitri Gutas, "Islam and Science: A False Statement of the Problem," *Islam and Science* 1, no. 2 (December 2003): 215–20, and also more recent work by Ahmad Dallal, *Islam, Science, and the Challenge of History* (New Haven: Yale University Press, 2010). The book by Seyyed Hossein Nasr on the subject is *Science and Civilization in Islam*, 2d ed. (Cambridge: Islamic Texts Society, 2007 [1968]).

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36. Saliba analyzes an historical motivation to correct the many errors in Ptolemy's *Almagest*.

37. Ibn Sina, *Avicenna's Psychology: An English Translation of Kitab Al-Najat, Book 11, Ch. 6*, trans. Fazlur Rahman (Westport, CT: Hyperion, 1981 [1952]).

38. Two general sources on Islam and alchemy are John Eberley, *Al-Kimia: The Mystical Islamic Essence of the Sacred Art of Alchemy* (Hillsdale, NY: Sophia Perennis, 2004); and E. J. Holmyard, *Alchemy* (New York: Dover, 1990).

39. See Michael Muhammad Knight, *Magic in Islam* (New York: TarcherPerigee/Penguin, 2016).

40. Syed Nomanul Haq, updated by Massimo Campanini and Mauro Valdinoci, "Alchemy," in *The Oxford Encyclopedia of Philosophy, Science and Technology in Islam*, ed. Ibrahim Kalin, Massimo Campanini, and Mauro Valdinoci (New York: Oxford University Press, 2014), 19–20.

41. Haq, 20.

42. Haq, 21–22.

43. Haq, 23.

44. Haq, 21.

45. Najm al-Din al-Razi, *Path of God's Bondsmen from Origin to Return: A Sufi Compendium*, trans. Hamid Algar (Delmar, NY: Caravan, 1982).

46. Introducing his book, Saliba identifies his overall presentation to be an "alternative" and a "critique" of Eurocentric "classical narrative," as he outlines it systematically in *Islamic Science*, 1–19.

47. Albert Hourani, *Arabic Thought in the Liberal Age, 1798–1939* (Cambridge: Cambridge University Press, 1983). See also discussion in Ellen J. Amster, *Medicine and the Saints: Science, Islam, and the Colonial Encounter in Morocco: 1877–1956* (Austin: University of Texas Press, 2014).

48. A picture of Islamic medical ethics could be considered an analogy to environmental ethics, including the attempt to cast new questions in terms of old answers; see contributions to Jonathan E. Brockopp and Thomas Eich, eds., *Muslim Medical Ethics: From Theory to Practice* (Columbia: University of South Carolina Press, 2008).

49. Hayu Prabowo, personal communication, 2014.

50. Two general sources on the topic are Omar Draz, "The Hema System of Range Reserves in the Arabian Peninsula: Its Possibilities in Range Improvement and Conservation Projects in the Near East," in Jeffrey A. McNeely and David Pitt, eds., *Culture and Conservation: The Human Dimension and Environmental Planning* (London: Croom Helm, 1985), 109–12; and Lutfallah Gari, "Ecology in Muslim Heritage: A History of the Hima Conservation System," *Environment and History* 12, no. 2 (May 2006): 213–28, <http://www.muslimheritage.com/article/ecology-muslim-heritage-history-hima-conservation-system>. It is also discussed in some detail with respect to Islamic legal precedent and initiatives in the Middle East in Safei El-Deen Hamed, "Seeing the Environment Through Islamic Eyes: Appreciation of Shari'a to Natural Resources Planning and Management," *Journal of Agricultural and Environmental Ethics* 6, no. 2 (1993): 145–64.

51. For example, <http://www.theecomuslim.com/2015/04/history-arabia-green-laws.html?m=0>.

6. MUSLIM ENVIRONMENTALISM AS RELIGIOUS PRACTICE

52. Mawil Izzi Dien, *The Environmental Dimensions of Islam* (Cambridge: Lutterworth, 2000), 42.

53. Izzi Dien, 43.

54. Izzi Dien, 43.

55. Izzi Dien, 44.

56. For example, the Society for the Protection of Nature in Lebanon, which describes itself online as “The World Leader in Hima Revival”: <http://www.spnl.org/hima/>.

57. Izzi Dien, *The Environmental Dimensions of Islam*, 36, citing the authority of Zuhayli.

58. A description of the project may be found at http://www.rufford.org/rsg/projects/fachruddin_mangunjaya. There is an interest in protected areas in environmental humanities, evidenced by the large amount of writing on “sacred groves” in India. The coincidence of the Harim Zone and ideas of conservation connected to carbon sequestration programs such as REDD and REDD+ is also notable.

59. This is transcribed and translated from a short video made by the author of K. H. Ahmad Yani describing the Harim Zone in the collection *Green Islam in Indonesia*: <https://vimeo.com/album/1848341/video/37292042>.

60. Bruno Latour, *We Have Never Been Modern* (Cambridge, MA: Harvard University Press, 1993); and *Pandora's Hope: Essays on the Reality of Science Studies* (Cambridge, MA: Harvard University Press, 1999).

61. Bruno Latour, “Waiting for Gaia: Composing the Common World Through Arts and Politics,” lecture, French Institute, London (November 2011), http://www.bruno-latour.fr/sites/default/files/124-GAIA-LONDON-SPEAP_0.pdf.

6. Muslim Environmentalism as Religious Practice

1. Carl Ernst, *The Shambhala Guide to Sufism* (Boston: Shambhala, 1997); Alexander Knysh, *Islamic Mysticism: A Short History* (Leiden: Brill, 2000); and Michael Sells, *Early Islamic Mysticism: Sufi, Qur'an, Mi'raj, Poetic, and Theological Writings* (New York: Paulist, 1996).

2. This original idea of the environment itself (and, by implication, environmental personhood as a politics of knowledge, as well as the field of environmental studies overall) as the *subaltern* first appears in Anna M. Gade, “Roundtable on Islam and Normativity: A Response,” *Journal of the American Academy of Religion* 84, no. 1 (March 2016): 121, circulating previously as the main thesis of this book, shared from 2014 to 2016. Reference to the subaltern here is with respect to Gayatri Chakravorty Spivak’s seminal essay “Can the Subaltern Speak?,” in *Marxism and the Interpretation of Culture*, ed. Cary Nelson and Lawrence Grossberg (Urbana: University of Illinois Press, 1988), 271–313, as well as more recent writings drawing on Gramsci’s original ideas of hegemony. In the study of Muslim systems, the idea of an environmental subaltern is suggested by the title of the chapter, “Can the Mosquito Speak?,” in Timothy Mitchell, *Rule of Experts: Egypt, Techno-Politics, Modernity*

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(Berkeley: University of California Press, 2002), 19–53. Some have criticized the subaltern as being used far too widely in social theory, and apart from the colonial condition; notably it is not applied to the nonhuman, despite a widespread ontological turn in humanistic fields, including environmental studies since the aughts, that would draw on postcolonial theory.

3. This approach is typical of Annemarie Schimmel of Harvard University, for example, in *Mystical Dimensions of Islam* (Chapel Hill: University of North Carolina Press, 1975).

4. One of the most well-known works of Seyyed Hosein Nasr in this regard, and overall, is his *An Introduction to Islamic Cosmological Doctrines* (Albany: State University of New York, 1993 [1964]); see also William Chittick, *Science of the Cosmos, Science of the Soul: The Pertinence of Islamic Cosmology in the Modern World* (Oxford: Oneworld, 2007).

5. Work on Islam and nature continues following Nasr, such as with Mohammed Rustom's unpublished article "Toward a Muslim Poetics of Nature," available online at <http://www.mohammedrustom.com/wp-content/uploads/2015/06/Towards-a-Muslim-Poetics-of-Nature.pdf>. Also heavily influenced by Nasr is Munjed M. Murad, "Inner and Outer Nature: An Islamic Perspective on the Environmental Crisis," *Islam and Science* 10, no. 2 (Winter 2012): 117–37; and Maria Dakake, "To Be Khalifah: The Human Vocation in Relation to Nature and Community," Building Bridges Conference, Washington, DC, May 2015.

6. For publications on Islam and the environment drawing on Ibn 'Arabi, see Kaveh L. Afrasiabi, "Toward and Islamic Ecotheology," *Hamdard Islamicus* 18, no. 1 (1995): 33–49; and William Chittick, "God Surrounds All Things: An Islamic Perspective on the Environment," *World and I: A Chronicle of Our Changing Era* 1, no. 6 (1986): 671–78. Works of Seyyed Hossein Nasr in this Sufi vein are also prolific; two representative articles are "Contemplation and Nature in the Perspective of Sufism," in *Islamic Life and Thought* (Chicago: ABC International Group, 2001), 200–6; and "The Ecological Problem in Light of Sufism: the Conquest of Nature and the Teachings of Eastern Science," in Seyyed Hosein Nasr, ed., *Sufi Essays*, 2d ed. (Albany: State University of New York Press, 1991), 152–63.

7. For example, Lynda Clarke, "The Universe Alive: Nature in the Philosophy of Jalal al-Din Rumi," in *Thinking About the Environment: Our Debt to the Classical and Medieval Past*, ed. Thomas Robinson and Laura Westra (Lanham, MD: Lexington, 2002), reprinted in Richard C. Foltz, Frederick M. Denny, and Azizan Baharuddin, eds., *Islam and Ecology: A Bestowed Trust* (Cambridge, MA: Harvard University Press, 2003), 39–66.

8. For analysis, see Fetemeh Keshavarz, *Reading Mystical Lyric: The Case of Jalaluddin Rumi* (Columbus: University of South Carolina Press, 2004).

9. For example, see the overviews by Martin van Bruinessen: "The Origins and Development of Sufi Orders (Tarekat) in Southeast Asia," *Studia Islamika* 1 (April/June 2014): 1–24; and "Sufi 'Orders' in Southeast Asia: From Private Devotions to Social Networks and Social Action," in *Buddhist and Islamic Orders in Southern Asia: Comparative Perspectives*, ed. R. Michael Feener and Anne M. Blackburn (Honolulu: University of Hawai'i Press, 2018), 125–52.

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10. Suwito NS, *Eko-Sufism: Konsep, Strategi, dan Dampak* (Jogjakarta: STAIN, 2011). This book blends the theory of Ibn Al-ʿArabi, such as that presented by American scholar of religion William Chittick, with the practice of the Eco-Sufism group.

11. Such a “training” model is familiar in contemporary Islamic programming in Indonesia. See Daromir Rudnyckyj, *Spiritual Economies: Islam, Globalization, and the Afterlife of Development* (Ithaca, NY: Cornell University Press, 2010); James Hoesterey, *Rebranding Islam: Piety, Prosperity, and a Self-Help Guru* (Stanford: Stanford University Press, 2015) also analyzes a kind of marketing approach for mainstream Indonesian Islam. Hoesterey’s case involves Darut Tauhid in Bandung and the career of the preacher Aa Gym, who runs an eco-pesantren discussed elsewhere in this book.

12. “Developing ‘Eco-Sufism’ in Indonesia,” a video available online in the collection Green Islam in Indonesia: <https://player.vimeo.com/video/38198120>.

13. Sells, *Early Islamic Mysticism*.

14. See the analysis in Steven M. Wasserstrom, *Religion After Religion: Gershom Scholem, Mircea Eliade, and Henry Corbin at Eranos* (Princeton: Princeton University Press, 1999).

15. Seyyed Hossein Nasr, *Man and Nature: The Spiritual Crisis of Modern Man* (Chicago: ABC International, 1997 [1968]). This is based on the Gifford Lectures given at the University of Chicago in 1967.

16. Discussion of the impact of the original image from an American space expedition in 1968 on the environmental movement is found on the NASA website: https://www.nasa.gov/multimedia/imagegallery/image_feature_1249.html.

17. Eliade himself was reported anecdotally to have held that it is not possible to have the history of religions address Islam seriously because it was purportedly lacking in myth.

18. Mircea Eliade, “History of Religions and a New Humanism,” *History of Religions* 1, no. 1 (1961): 1–8.

19. For example, Seyyed Hossein Nasr, “Islam and the Environmental Crisis,” in *Islamic Quarterly* 34, no. 4 (January 1990): 217–34; and “Traditional Man, Modern Man, and the Environmental Crisis,” *Sophia* 12, no. 2 (Fall/Winter 2006): 28–33.

20. As Tarik M. Quadir points out in *Traditional Islamic Environmentalism: The Vision of Seyyed Hossein Nasr* (Lanham, MD: University Press of America, 2013), the two approaches are also quite a contrast. Richard Foltz also juxtaposes the two authors in his anthology, *Worldviews, Religion, and the Environment: A Global Anthology* (Belmont, CA.: Wadsworth Thomson, 2002).

21. This is the opening to Seyyed Hossein Nasr, “Islam, the Contemporary Islamic World, and the Environmental Crisis,” in Foltz, Denny, and Azizan Baharuddin, *Islam and Ecology*. On pp. 85–86, he writes,

My own concern with issues of environmental crisis goes back to the early 1950s and my student days at the Massachusetts Institute of Technology and Harvard University. . . . I used to walk alone, like Thoreau, around Walden Pond when the natural scenery of the area was still well preserved. It was the construction of Route 128 around Boston and the consequent separation, ecologically speaking,

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of the area inside the beltway from the relatively unhindered countryside beyond that brought home to me the fact that something was basically wrong in our relationship to nature. . . . I was led to foresee a major environmental crisis, whose real causes were spiritual, looming on the horizon. I saw the blind development of modern industry as a cancer in the body of nature.

22. For example, Seyyed Hossein Nasr, "Spiritual Chivalry," in *Islamic Spirituality II: Manifestations*, 304–18, ed. Seyyed Hossein Nasr (New York: Crossroads, 1991).

23. Nasr, "Islam, the Contemporary Islamic World, and the Environmental Crisis," 93.

24. Nasr, *Man and Nature*, 17. Nasr cites Mircea Eliade, who was a member of the faculty at the divinity school where he was speaking at the time, in a note on this passage.

25. Nasr, "Islam, the Contemporary Islamic World, and the Environmental Crisis," 87–88.

26. Nasr, 88.

27. Nasr, *Man and Nature*, 4.

28. Nasr, 4. According to interpreter Quadir, Nasr presents a holistic yet hierarchical worldview of *tawhid* (God's unity), which stands in opposition to a secular, "western" valuation of *takthir* (accumulation). Quadir, *Traditional Islamic Environmentalism*, discussing *takthir* on pp. 171–74.

29. Nasr, "Islam, the Contemporary Islamic World, and the Environmental Crisis," 94.

30. Seyyed Hossein Nasr, Caner Karacay Dagli, Maria Massey Dakake, Joseph E. B. Lumbard, and Muhammad Rustom, eds., *The Study Qur'an: A New Translation and Commentary* (New York: HarperOne, 2015).

31. A study of this type that focuses on American and British Muslim environmentalist activists and scholars, including Nasr, is Rosemary Hancock, *Islamic Environmentalism: Activism in the United States and Great Britain* (New York: Routledge, 2018).

32. Donald Swearer, "The Hermeneutics of Buddhist Ecology in Contemporary Thailand: Buhhadasa and Dhammapitaka," in Foltz, *Worldviews*, 181–92, which also documents *dharma* used similarly to *sunnat* Allah in Muslim Southeast Asia. David Haberman's book, ethnographic in approach, also discusses Ghandian environmental ethics that are predicated on self-knowledge and determination (*swaraj*) with a stand for the truth (*satyagraha*), the criterion for which is nonharm (*ahimsa*). David Haberman, *River of Love in an Age of Pollution* (Berkeley: University of California Press, 2006). Ramachandra Guha also emphasizes the influence of Mohandas Gandhi in his primary case study, the Chipko movement for forest conservation in India. Ramachandra Guha, *The Unquiet Woods: Ecological Change and Peasant Resistance in the Himalaya*, expanded ed. (Berkeley: University of California Press, 2000).

33. Annemarie Schimmel, *And Muhammad Is His Messenger: The Veneration of the Prophet in Islamic Piety* (Chapel Hill: University of North Carolina Press, 1985) is an exception to this. In the past decade, works by Carl Ernst, Marion Katz, Omid Safi, and others have developed perspectives on the veneration of the Prophet in the academic study of religion.

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34. William Cummings and R. Michael Feener, personal communication, ca. 1996.

35. In Arabic, the latter words encompass two verbs: *shifa'a*, for example, in Q. 16: 69 (as in bees' honey for "healing"), and also another Arabic verb with similar meaning that sounds similar, *shafaqa* (tenderness, care), the word that appears in the hadith cited in this chapter. Malay-Indonesian today is the native language of as many Muslims in the world as those who are native speakers of Arabic.

36. Alan Godlas cites the source as Abu Bakr Muhammad b. Abi Ishaq al-Kalabadhi, *Bahr al-Fawa'id* (personal communication, 2016), available online at <http://islamport.com/w/srh/Web/1450/91.htm>. Al-Kalabadhi, *The Doctrine of the Sufis (Al-Ta'arruf li-madhhab ahl al-tasawwuf)*, trans. A. J. Arberry (Cambridge: Cambridge University Press, 1997), is al-Kalabadhi's well-known introduction to Sufism.

37. Aldo Leopold, *A Sand County Almanac (and Sketches Here and There)* (New York: Oxford University Press, 1968 [1949]). Arne Naess, in his manifesto on deep ecology, "The Shallow and the Deep," Christopher Stone on the "rights of nature" in *Should Trees Have Standing?*, and, more recently, Timothy Morton in *Environment Without Nature* all show a tendency to divert discussions to "love" when their language of environmental argument otherwise breaks down. Systematic treatments of ecological love in fields of environmental humanities are Kay Milton, *Loving Nature: Towards an Ecology of Emotion* (New York: Routledge, 2002); and Edward O. Wilson, *Biophilia* (Cambridge, MA: Harvard University Press, 1984).

38. Clifford Geertz, "Religion as a Cultural System," in *The Interpretation of Cultures* (New York: Basic Books, 1973), 87–125.

39. Jonathan Z. Smith, *To Take Place: Toward Theory in Ritual* (Chicago: University of Chicago Press, 1987). For relevant anthropological treatment of "sacred space" and Islam, consider a study such as Pnina Werbner, "Stamping the Earth with the Name of Allah: Zikr and the Sacralizing of Space Among British Muslims," *Cultural Anthropology* 11, no. 3 (August 1996): 309–38.

40. Some of the material in this section appears in the SSRC blog *Reverberations* (2015) as Anna M. Gade, "Landscapes of Prayer: Islam, the Environment, and Java," <http://forums.ssrc.org/ndsp/category/landscapes-of-prayer/>. It is also discussed in altered form in Anna M. Gade, "Beyond 'Hope': Religion and Environmental Sentiment in the USA and Indonesia," in *How Do We Study Religion and Emotion?*, ed. John Corrigan (Durham, NC: Duke University Press, 2017), 175–99; and "Tradition and Sentiment in Indonesian Environmental Islam," *Worldviews: Global Religions, Culture, and Ecology* 16, no. 3 (January 2012): 263–85. Videos about Pondok Pesantren "Al-Ittifaq" and Pondok Pesantren "Al-Wasilah," traditional institutions in West Java, along with Islamic ecological centers Bumi Langit and Pesan "Trend" Ilmu Giri in Central Java, are on the website Green Islam in Indonesia (www.vimeo.com/hijau).

41. A short recorded excerpt of K. H. Thonthawi's eco-salawat from 2011 may be heard online as "Eco-Salawat (Sound Recording Excerpt)" in the collection Green Islam in Indonesia: <http://vimeo.com/video/103290561>.

42. The whole *Selasa Pon* ritual, edited from its original length of about forty minutes to twenty minutes, can be viewed online as part of the collection Green Islam in Indonesia: <http://vimeo.com/video/102569428>.

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43. A video link to the interview, titled “Eco-Dhikr,” is available online on the site Green Islam in Indonesia, <http://vimeo.com/video/102382599>.

44. An online recording of the “Keindahan Alam” performed live at K. H. Affandi’s home in 2011 is available in a video online in Green Islam in Indonesia: <https://vimeo.com/37345606>. This is the community discussed at length in the book by Faiz Manshur, *Entrepreneur Organik: Rahasia Sukses K. H. Fuad Affandi Bersama Pesantren dan Tarekat “Sayuriah’-nya”* (Bandung: NUANSA, 2009). This example appears is discussed in more detail in a Qur’anic framework in the author’s article “Tradition and Sentiment.”

45. Some of this material is discussed by the author in a blog post from *Edge Effects*, Center for the Study of Culture, History, and Environment at the University of Wisconsin-Madison, “Praying for Forgiveness: Religious Ethics of Sustainability in Muslim Indonesia,” available at <http://edgeeffects.net/religious-ethics-of-sustainability/>. It is also discussed in the author’s article, “Beyond Hope.” Iskandar Waworuntu’s words may be found in a multipart video interview in the video collection Green Islam in Indonesia, with material on *istighfar* discussed in “Praying for Forgiveness: Consumption and Islamic Practice”: <https://vimeo.com/102535122>.

46. See further discussion in Gade, “Tradition and Sentiment,” which coins the term *eco-dakwah*, as well as more in-depth analysis in Anna M. Gade, “Indonesian Islamic Law of the Environment: *Fatwa* and *Dakwah*,” *Worldviews: Global Religions, Culture, and Ecology* 19, no. 2 (January 2015): 161–83. The sources are Ahsin Sakho Muhammad et al., eds., *Fiqh Al-Bi’ah/Fiqh Lingkungan* (Jakarta: Conservation International Indonesia, 2006); Alie Yafie, *Merintis Fiqh Lingkungan Hidup* (Jakarta: Yayasan Amanah, 2006); and Kantor Menteri Negara Lingkungan Hidup, Departemen Agama Republik Indonesia, and Majelis Ulama Indonesia, *Islam Dan Lingkungan Hidup* (Jakarta: Yayasan Swarna Bhumi, 1997).

47. Yafie, *Merintis Fiqh Lingkungan Hidup*, 227.

48. *Islam dan Lingkungan Hidup*, chapter 9, titled “Pendayagunaan Dakwah Dalam Pelestarian Lingkungan Hidup,” 99–110.

49. *Islam dan Lingkungan Hidup*, 105–11 *passim*.

50. The album of short videos online about “Pondok Pesantren Al-Wasilah” in the collection Green Islam in Indonesia, <https://vimeo.com/album/1854899>, includes a longer, four-part interview with K. H. Thonthawi that outlines the points to follow.

51. A variant is told in a videorecording by another West Javanese kiai with no connection to K. H. Thonthawi, K. H. Ahmad Yani (who manages the site of his eco-pesantren as the Harim Zone), in the Green Islam in Indonesia collection: <https://vimeo.com/37273275>.

52. Thonthawi Jauhari Mushaddad, *Proposal Pilot Project Program Pemberdayaan: Pembangunan Perdesaan Mandiri Berbasis Amal Shaleh Sosial Berwawasan Lingkungan* (Garut: Pesantren Luhur Al-Wasilah, 2010).

53. Anna Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton: Princeton University Press, 2016), quoting descriptive text from dust jacket; and Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham, NC: Duke University Press, 2016), 1.

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54. Anna Tsing, Heather Swanson, Elaine Gan, and Nils Bubandt, eds., *Arts of Living on a Damaged Planet: Ghosts of the Anthropocene* (Minneapolis: University of Minnesota Press, 2017).

55. Lila Abou-Lughod, *Do Muslim Women Need Saving?* (Cambridge, MA: Harvard University Press, 2015).

56. Judith Butler, *Notes Toward a Performative Theory of Assembly* (Cambridge, MA: Harvard University Press, 2015) theorizes community and performative protest.

57. Carrie Rosefsky Wickham, *Mobilizing Islam: Religion, Activism and Political Change in Cairo* (New York: Columbia University Press, 2002); and Diane Singerman, *Avenues of Participation: Family, Politics and Networks in Urban Quarters of Cairo* (Princeton: Princeton University Press, 1995). Foundational, fieldwork-based writing on mobilization and the “parallel sector” in the Arabic-speaking Middle East is in some ways an extension of civil-society literature, which led to some of the current anthropological interest in the everyday, such as Asef Bayat, *Life As Politics: How Ordinary People Change the Middle East* (Stanford: Stanford University Press, 2010).

58. Much of the following discussion appears in the author’s unpublished article, “Cham Muslims of Cambodia: Religion and Development” (2006).

59. For example, Omid Safi, *Progressive Muslims: On Justice, Gender, and Pluralism* (Oxford: Oneworld, 2003); in contrast, see Ali Ashgar Engineer, “Islamic Economics: A Progressive Perspective,” in *Islamic Economic Alternatives: Critical Perspectives and New Directions*, ed. K. S. Jomo (Basingstoke: Macmillan, 1992), 117–24.

60. Jonathan Benthall and Jérôme Bellion-Jourdan, *The Charitable Crescent: Politics of Aid in the Muslim World* (London: I. B. Tauris, 2003), 1–92. Benthall updates some of this analysis in his book, *Islamic Charities and Islamic Humanism in Troubled Times* (Manchester: University of Manchester Press, 2016).

61. Yahya ibn Habash (“Shahab Al-Din”) Suhrawardi was known as the “master of illumination” for his theory and practice based on light, a generation or two after Al-Ghazali wrote *Mishkat al-Anwar*. Suhrawardi, *Mystical and Visionary Treatises*, trans. W. M. Thackston (London: Octagon, 1982), including “A Tale of an Oxidental Exile,” 100–8. Nasr writes about Ibn Sina and Suhrawardi at length in Seyyed Hosein Nasr, *Three Muslim Sages: Avicenna—Suhrawardi—Ibn Arabi* (Delmar, NY: Caravan, 1976).

62. Nasr, “Islam, the Contemporary Islamic World, and the Environmental Crisis,” 99.

63. Nasr, 100.

64. Sayyid Qutb, “‘The America I Have Seen’: In the Scale of Human Values (1951),” in Mouna El Kahla and K. Abdel Malik, eds., *America in An Arab Mirror: Images of America in Arabic Travel Literature: An Anthropology* (New York: Palgrave MacMillan, 2000), 9–27. The Egyptian Sayyid Qutb develops an othering view of non-Islam (*jahiliyya*) in terms of a stark binary distinction between authentic “Islam” and “the west,” also leaving the “unauthentic” Islam of other Muslims open to challenge, as expressed elsewhere in his work *Milestones* (Cedar Rapids, IA: Mother Mosque Foundation, n.d.); his *Social Justice in Islam*, trans. John B. Hardie (Oneonta, NY: Islamic Publications International, 2000), as well as writing on Qur’anic aesthetics preceded that work.

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65. Benthall and Bellion-Jourdan write in *The Charitable Crescent*, 4, “Even apparently blameless Islamic charities have been accused by critics, such as Daniel Pipes, of dissimulating their real subversive motives under a veil of philanthropy.”

66. For comparison with a similar point from the perspective of East Asian studies, see Bryan W. Van Norden, *Taking Back Philosophy: A Cultural Manifesto* (New York: Columbia University Press, 2017).

7. From This World to the Next

1. J. Baird Callicott and Tom Hayden, *Earth's Insights: A Multicultural Survey of Ecological Ethics from the Mediterranean Basin to the Australian Outback* (Berkeley: University of California Press, 2004), is an example of this coalescing around ideals like stewardship.

2. Yusuf Al-Qaradawi, *Ra'ait al-bi'ah fi shari'at al-islam* (Cairo: Dar Al-Shuruq, 1421/2001).

3. See the general overview in Whitney A. Bauman, Richard R. Bohannon II, and Kevin J. O'Brien, “Tensions and Promises of Religion and Ecology's Past, Present, and Future,” in *The Inherited Land: The Changing Grounds of Religion and Ecology* (Eugene: Pickwick, 2011), 1–17.

4. Mawil Izzi Dien, *The Environmental Dimensions of Islam* (Cambridge: Lutterworth, 2000), 81.

5. Izzi Dien, 81.

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